AUTHOR'S PRESENTATION OF DOCTORAL (PhD) DISSERTATION

UNIVERSITY OF PUBLIC SERVICE FACULTY OF MILITARY SCIENCES AND OFFICER TRAINING DOCTORAL SCHOOL OF MILITARY SCIENCES

Lt Col. dr. Péter Ádám

The role of civil-military cooperation in a mass casualty situation, in health crises

Supervisor:

Lt. Gen. dr. Svéd László PhD

Table of contents:

FORMULATION OF THE SCIENTIFIC PROBLEM	1
RESEARCH HYPOTHESES	3
RESEARCH OBJECTIVES	
RESEARCH METHODS	
SHORT SUMMARY OF CHAPTERS	
SUMMARIZED CONCLUSIONS	
SCIENTIFIC FINDINGS	
RECOMMENDATIONS	
THE PRACTICAL APPLICABILITY OF RESEARCH RESULTS	
LIST OF PUBLICATIONS	14
THE DOCTORAL CANDIDATE'S PROFESSIONAL AND ACADEMIC BIOGRAPHY.	17

FORMULATION OF THE SCIENTIFIC PROBLEM

In my PhD thesis, I wanted to show how recent events have affected the situation of mass patient and casualty care in Hungary and the organisation of emergency health care. It's important to emphasisethat, besides the spectacular achievements of the health sector in recent times, there has only been a list of possible health crises caused by epidemics, severe shortages of health capacity and disproportionality due to epidemics, industrial accidents or other environmental hazards; no action-plan is immeditely available.

The importance of the subject is also reflected in the coronavirus epidemic and the prompt legislative changes made in the light of the experiences at the time, the efforts made to centralise and supervise the organisation of care, and the preparations made to ensure adequate material preparation. At the same time, similar problems in the near and distant future, and the need to prepare thoroughly for the quantitative or qualitative overloading of health care providers for whatever reason, need to be addressed before the situation arises, and my thesis aims to contribute to these aspects of preparation. Although the transformation of the civilian care system and the organisation of care in the event of a crisis has begun, as discussed above, the legislative environment has remained unchanged in many respects, so that the preparation of

individual outpatient and inpatient care institutions are still governed by earlier legislation, which can be considered partly obsolete from a professional point of view.

The scientific problem can be summarised in very simple terms by the following questions: How can the principle of 'most for most' be applied in the most effective and efficient way possible in a health crisis at local, regional, and national level? How to ensure that the various actors, whether civilian or military, are adequately prepared in terms of organisation, equipment, and personnel? How can the experience accumulated in real operational situations since January 2023, when the Hungarian Defence Forces Medical Centre, whose capabilities have been greatly changed by the withdrawal of the Defence Hospital, and the relevant NATO directives be applied to the predominantly civilian healthcare system in such a way that it serves to improve its operational capability and resilience in health crisis situations? At the beginning of my research project, I focused on the examination of the health emergency plans of individual outpatient and inpatient health care providers, and planned to examine the detailed plans required by the legislation. Namely, identifying discrepancies, possible shortcomings, and the direction of the proposed legislative changes. The research plan included an examination of the elements of the hospital care system, which were still essentially independent at the time, and the compatibility of the emergency plans of individual hospitals with each other, and a comparison with the relevant national and international professional literature, findings and proposals.

Experience gained in military environments and operational areas has often motivated scientific developments and technological advances. This is no different in the field of healthcare. The experience gained from healthcare in the field, whether at the level of direct casualty care (e.g. the experiences of the civilian healthcare system in the field of operations, whether at the level of casualty triage (e.g. haemostasis), at the level of casualty triage due to limited medical capacity, at the level of the designated times for specialist care to be provided in a timely manner for survival, or even at the level of medical evacuation, medical logistics, organisation of healthcare, have all had and will continue to have an impact on the civilian healthcare system, setting out an important direction for health technology development, as well as providing a professional, organisational lesson for the civilian care system in the event of a major mismatch between capacity and demand for care, in the event of a mass event or health crisis.

In my assessment, civil-military cooperation is not only an opportunity, but also an obligation in the field of healthcare, since it is a clear common goal and responsibility to share experience, to make joint use of it, to be as well prepared as possible, to coordinate the different capabilities

and to ensure optimal patient and casualty care in health crisis situations. My academic thesis focuses on the steps along which this optimisation can be achieved. I considered it necessary to investigate how to improve the Hungarian Army Medical Centre (MH EK) capability system, pre-hospital and hospital care management, and the development of civil-military cooperation points in the domestic health care system in order to respond effectively to the challenges facing the health care system.

RESEARCH HYPOTHESES

- 1. It can be demonstrated through the analysis of domestic scientific data, statistics from the health care system, and the vulnerability of our country to disasters that mass care is still a reality of everyday life, and that through civil-military cooperation, by comparing domestic civilian and military experiences in health care management, patient and casualty care in health crisis situations can be improved and optimised.
- 2. By identifying the common intersection of mass care situations in civilian and military environments, applying the DOTMLPFI (acronym for doctrine, organization, training, materiel, leadership and education, personnel, facilities and interoperability) conceptual framework, comparing relevant civilian and military codes, and systematically processing the recent experience of the MH EC in operational areas and disaster situations, one can identify a necessary and possible direction for the development of the MH EC's capabilities.
- 3. From the domestic response to the health crisis caused by COVID-19, the severe supply imbalance resulting from the pandemic, and the supply management responses to the supply needs that significantly exceeded the available domestic health capacities before the pandemic, significant experience can be gained for the health system, enhancing the resilience of the health care system by processing and incorporating the lessons learned.
- 4. Building domestic manufacturing capacity for critical health care equipment can increase national resilience, and by producing high quality health care equipment, the domestic supply system can become independent of foreign supply capacity.
- 5. By examining the health emergency plans of individual institutions and analysing the international and national literature, a proposal can be made for crisis care that will enhance the ability to respond to emergencies, promote integration between institutions, and with the care system as a whole, combining civilian and military resources as necessary.

6. Comparing the experience of domestic mass care with international recommendations and the experience in the MH EC, a development direction and a proposal for a new type of civil-military health integration, the Military Health Liaison Institution, can be formulated, and the feasibility of the concept can be evaluated in the context of national integrated exercises.

RESEARCH OBJECTIVES

My aim was to develop a set of recommendations, based on scientific evidence and practical experience, in order to help prepare for patient and casualty care in health emergencies, optimise patient care, put the principle of the most for the most into practice, both in the prehospital, prehospital care phase, and during hospital care.

I would like to demonstrate that despite the recent, welcome and forward-looking legislative changes and strengthened centralised care management, further professionally and scientifically sound steps can be taken at the level of on-site care, hospital care, and regional and national care management to provide even better care for those in need in health emergencies.

My aim was to show how the experience of military planning, the conceptual framework of military planning, can help to organise civilian health care and directly improve patient care.

My aim was to review in detail and systematically the national and international literature on mass health care.

Furthermore, my aim was to review the legal environment governing hospital emergency health care plans, comparing the expectations set out therein with the recommendations of the international literature, and to make recommendations for the further development of the Hungarian system

My aim was to elaborate the relevant NATO documents, doctrines and procedures, applying them to the current situation of the Hungarian care system, looking for common links and possible directions for improvement in Hungary.

My aim was to evaluate and scientifically process the MH EK's response to recent unforeseen health situations and to identify new directions for development based on the lessons learned. Finally, my main objective was to explore the current state of civil-military health cooperation in the country and to formulate possible future extensions based on the above recommendations and findings.

RESEARCH METHODS

I will use publicly available North Atlantic Treaty Organisation (NATO) approved health-related doctrines and procedures, compare the military doctrines with the Hungarian care organisation, the legal environment and the available hospital emergency plans. I will evaluate my direct experience of field care in recent years, whether in a civilian or military setting, possibly at the intersection of the two, my experience of hospital care management and lessons learned from recent county-level exercises in civil-military cooperation and care management.

In the course of my analysis, I will review the regulations of the domestic legal environment in the field of health emergencies, compare them with international civilian and military standards, highlight any perceived shortcomings or inconsistencies, and make recommendations for changes to the legislation. I graduated from the Semmelweis University of Medicine, Faculty of General Medicine, so in my thesis I approach the topic primarily from a healthcare perspective, and although I discuss the proposals for change that can be identified and demonstrated from a health perspective, I can only provide suggestions on the exact changes to the legal regulation necessary in the absence of legal training.

In my thesis, I aim to present the relevant aspects of the changes in health care organisation in recent years that directly or indirectly affect the care of patients and injured persons in health care crisis situations and mass casualty situations. In the context of the major changes in recent years that affect my subject, I will examine the motivations for the transformation, evaluate the function of the new structures that have been created and their comparability with the military health doctrines that are the starting point for my evaluation. I will present my conclusions from the centralisation and strengthened supervision that I have observed, and outline the areas in which I believe further unification and centralisation is needed to make health care organisation even more effective.

- a. In accordance with the requirements of the doctoral school, I began my research by drawing up a draft individual study and research programme in the preparatory phase, modifying the draft gradually and step by step as necessary, and then finalising it in the light of recommendations in scientific theory and research methodology and my individual research experience.
- b. I conducted a literature search on the relevant domestic, international and, in particular, relevant NATO doctrines, integrated them into the current domestic regulatory

- environment, reviewed the results of previous research and PhD theses related to my research area.
- c. I analysed the health emergency plans of a few selected inpatient care institutions in Hungary, comparing them with each other, with the domestic legal environment, and with the recommendations found in the international literature.
- d. I systematically collected the experiences of the MH Health Centre with regard to recent unexpected health emergencies, striving for an integrative approach, common lessons learned and resulting recommendations.
- e. I looked for opportunities to validate the emergency plans of each institution through exercises, complementing the existing structure with opportunities for civil-military cooperation, interviewing participants individually and systematically analysing the lessons learned during the exercises.
- f. I have regularly published my experiences gathered during the research work, regularly presented them at the national health science congresses, and I have incorporated the feedback, responses and evaluations received into my scientific work.
- g. During my foreign deployment I had the opportunity to get acquainted with the plans of several nations for independent, but integrative casualty care at a higher level of care in a military environment, and I analysed these plans in detail and tried to formulate relevant recommendations for the domestic conditions and possible directions of civil-military cooperation.
- h. After collecting the source material, I compared my previous scientific results and thoughts with the publications and prepared my scientific thesis..

SHORT SUMMARY OF CHAPTERS

In the first chapter, I dealt with mass care situations, health emergencies and the causes of disasters. On the basis of the literature and relevant statistics, I have shown that health emergencies have occurred in Hungary in the past, thus justifying the relevance of my research topic. In addition to the description of the past crises, I have also systematised the recent legal changes, some of the changes in the interpretation of concepts, legal regulation and terminology in recent years, and have shown that health crises are likely to occur in Hungary in the future for various reasons. I have processed the relevant elements of the report on Hungary's National

Disaster Risk Assessment, drawing the attention of future health care management researchers to a detailed review of the document.

In the second chapter, I focused my investigations on the organisation of mass care on the ground. In our country, the National Ambulance Service is responsible for the provision of mass care in the field, so I first reviewed the relevant protocols of the Ambulance Service and then compared the Ambulance Service protocols with NATO recommendations for mass care in a military environment, in the phases of preparation, planning and implementation, in a pioneering way. First, I applied the DOTMLPFI military planning framework to the recent responses of the Hungarian Defence Medical Centre to unexpected mass care situations in the humanitarian and operational domain, systematically examining the guiding principles of the response to the earthquake in Turkey and the KFOR mass care situation, based on my research, the organisational structure of the units involved, their prior training, the existence of the physical conditions necessary for the response, the aspects of command and control, the personnel involved, the existence of the necessary infrastructure, with particular reference to the importance of cooperation and interoperability. I developed in detail a proposal for the development of the Hungarian Defence Medical Centre's capability, detailing the principle of a rapid response unit yet to be established, its function in the Hungarian civilian and military health system, the organisational, equipment, personnel, and infrastructure improvements required for the establishment and operation of the capability. The proposed structure of the rapid response unit was compared with the relevant international civilian categories, such as WHO and NATO recommendations.

In the third chapter, I dealt with the hospital side of health crisis care. Applying the planning framework described in the previous chapter, I used the elements of the DOTMLPFI acronym to elaborate and evaluate the process of planning for crisis care, the aspects to be considered in the preparation and planning. By exploring the concept of resilience, derived in part from the military environment, and examining the preparedness of the domestic health care system, I showed that the resilience of health care systems to unexpected, high impact events can be enhanced through advance planning and preparation, emphasizing the importance of a whole-of-government and even whole-of-society approach.

I have shown that part of advance preparedness is the advance provision of critical equipment, with a preference for building domestic manufacturing capacity rather than procurement, and I have described the characteristics and circumstances of the creation of a modern ventilator, the result of my own work in this area. I compared the civilian and military definitions of resilience and assessed the readiness of the domestic health system along their common intersection. As

a new scientific result, I have examined, through data collection and data analysis, the preparedness of domestic hospitals to deal with nuclear, biological and/or chemical injuries, indicating precisely the proposed direction of the necessary changes. In this chapter, I discussed the hospital aspects of civilian and military health care in a cross-sectoral, cross-national approach, as recommended by international organisations, examining the domestic health capacity of the host nation's support, comparing it with the relevant NATO recommendations. I have taken a new approach to hospital health emergency planning, comparing the domestic legislative environment with international civilian and military recommendations, identifying the changes needed to better prepare the care system, proposing dynamic crisis planning that incorporates lessons learned rather than static planning.

In chapter four, I provide a comprehensive assessment of domestic civil-military health cooperation, reviewing relevant national and international literature and domestic experiences. Civil-military cooperation is seen by both international NGOs and our military alliance system as a critical element, so I considered it necessary to compare the recommendations of these organisations, to develop a common intersection and to compare the results of this examination with the domestic legal and health care management environment. One of the elements of civilmilitary cooperation is the health reserve system, the strengthening of which is a clear task in Hungary as well, and to this end I examined the professional composition, proportion and motivation of the participants in the current reserve system. By processing the data on the reserve system and assessing the motivation of medical reservists, I examined the possible directions for strengthening the reserve system, highlighting the importance of a new training system for medical reservists, regular recruitment, and integrated training. I was the first to examine, from a military perspective, the feasibility of a civilian hospital's health emergency plan and its implementation, and to propose a new form of civil-military cooperation, the establishment of a military medical liaison system between hospitals and medical officers. I evaluated the experience of recent exercises, analysing the concept of a military health liaison and examined its effectiveness during triage and simulation exercises approaching real mass care, health emergency care.

SUMMARIZED CONCLUSIONS

In my thesis, I examined the possibilities of civil-military cooperation in health crisis situations and the available international civil and military recommendations. I evaluated the resilience

of the Hungarian health care system and its preparedness to manage situations of sudden, high disproportionality by scientifically processing data and experiences from Hungary.

In the first chapter, I justified the topicality of my topic, presented domestic statistics and disaster risk analyses on mass care, and clarified the conceptual framework based on the legal regulations. I concluded that the earlier general but erroneous approach of considering the supply management aspects of health emergencies only as a textbook curiosity proved to be outdated for all participants at the latest at the time of the coronavirus epidemic. I have found that the transformation of the legal environment has made the previously decentralised organisation of care more centralised, and new aspects of care organisation and care planning have emerged. As a conclusion of the thesis as a whole, I appreciate that in the post-epidemic period, currently, for example, the war in neighbouring Ukraine, but also the changed security environment in Hungary, threatens to create another mass care situation, and therefore the protection of the country must be ensured in a nationwide, cross-sectoral manner, which includes the preparation of the health care system, and the use of civil-military cooperation opportunities.

In my thesis, I have divided health care into prehospital and hospital phases in order to ensure an accurate scientific analysis. I have discussed the national and international regulations for prehospital and on-site care in a coherent framework, identifying and presenting their common interfaces. In my research, I processed the recent experiences of the Hungarian Defence Medical Centre in the field of operations in mass care situations in a unified DOTMLPFI conceptual framework, drawing conclusions from this to suggest the direction of the necessary capability development, detailing the basic purpose and structure of the planned rapid response medical unit. The capability development was proposed taking into account international, civil and military recommendations for the expected deployment situations, with the advice of a professional expert to support the initial development and procurement.

I have dealt in detail with the preparedness and plans of the hospital side to deal with the consequences of health emergencies. In the course of my research, I found that the concept of resilience can be applied to the health care system, but that building the necessary resilience requires prior planning and capacity building. One such direct experience of resilience development was my role as a subject matter expert in the domestic production of a critical hospital device. In reviewing the plans for the care of nuclear, biological, and chemical casualties in domestic hospitals, I showed that although the data analysed indicated that the capability, equipment, and plans for the care of radiation casualties were available in the vast

majority of the designated hospitals, changes in professional education, training, and patient pathways would be required for chemical and biological casualties.

I have examined the domestic legal framework for the preparation of hospital health emergency plans and compared it with the recommendations of international organisations, NATO recommendations and examples from specific foreign countries. I have concluded that the current static planning system should be replaced by a dynamic method that incorporates experience gained from planning, regular training and practice, where the preparation of plans is supported by a planning aid and professional training.

I have concluded that the development of the health side of the Hungarian civil-military cooperation cannot be imagined without reviewing and expanding the health reserve system. By examining the professional training data and motivation of the soldiers currently serving as medical reservists, I suggested the necessary steps to be taken for expansion and recruitment. I researched and examined the idea of a military health liaison officer in hospitals as a new possibility in civil-military cooperation, and after its theoretical development, I examined the feasibility of the idea during county and national exercises, incorporating the conclusions and experiences into the development of the idea and the elaboration of the tasks of the military health liaison officer. I proposed the establishment of an office within the MH EC to coordinate the various civil-military health cooperation tasks and to liaise with national administrative, professional, and scientific organisations.

Overall, I provided a comprehensive analysis of the current domestic system of civil-military cooperation in health care, on the prehospital and hospital side, emphasizing the importance of common intersections, experience sharing, pointing the way to the development of civil-military cooperation in the health care environment, and suggesting possible directions for capacity building. In my thesis, I have researched and demonstrated the role of civil-military cooperation in mass care situations in a comprehensive way, on the prehospital, hospital, and broader care management side, its importance, the need to apply elements of the summarized conclusions drawn from the experiences of the civilian and military sides.

SCIENTIFIC FINDINGS

1. In my thesis, I used scientific methods to analyse statistics on domestic mass care, disaster risk analyses, and the legal regulatory environment to show that, as in the past, disproportionality of care in healthcare is a situation that will continue to occur in the future.

With this in mind, I reviewed international recommendations and developed my proposals for capacity building in the prehospital, hospital phase of Hungarian civil-military cooperation, and for high-level, regional and national care organisation.

- 2. In my thesis, I first examined the Hungarian Defence Forces' response to the recent mass care situation during the earthquake in Turkey and the attack on the KFOR formation using a structured approach to experience analysis, according to the DOTMLPFI criteria for military planning. Next, taking into account national and international civil and military regulations, I proposed the direction of the necessary capability development, elaborating in detail the concept of a rapid response unit, its purpose, mission, structure and the training concept necessary for its successful operation.
- 3. I pioneered an evaluation of the emergency plans of inpatient institutions in the country, based partly on the DOTMLPFI criteria and partly on the modern concept of resilience, with an insight into the holistic crisis caused by COVID-19. I compared the domestic legal framework for crisis planning with international civilian and military recommendations, identifying the need to build a comprehensive, partly cross-sectoral, dynamic crisis planning process, including the training and practice of the persons involved, instead of the isolated, static approach of the past.
- 4. I have shown that, as health crises become more international, the procurement routes and channels for critical assets that are essential and vital in managing the health consequences of crises, such as ventilators during the pandemic, can become uncertain. I have shown that creating domestic manufacturing capacity for such devices, beyond the immediate goal of ensuring people's health, can enhance national resilience and the resilience of the health system as a whole.
- 5. I evaluated the forms of civil-military cooperation in the field of health, based on international civil and NATO recommendations, and pointed the way for their development. I examined the legal regulations and international literature on health crisis situations in inpatient care institutions in Hungary, and, using the most appropriate international example based on my research, I proposed a dynamic planning method that also integrates health professional control instead of the static planning approach of current domestic health crisis preparedness and care organisation.

6. In order to achieve a high level of integration of health care management, I proposed a new element of regional and national level civil-military health cooperation, the military health liaison. I defined the tasks of the military health liaison, then I examined the feasibility and usefulness of the idea during county and national exercises, and by incorporating the experiences, I made a final proposal for the tasks of the military health liaison.

RECOMMENDATIONS

The findings of my thesis can be used as a basis for further development of civil-military health cooperation and for initiating further research. In the domestic health care system, the civil and military sides are clearly interdependent yet independent, the professional and practical experience gained on both sides are complementary, and the development of an efficient, flexible and responsive health care system capable of responding to health care crises can only be imagined by bringing together the domestic and international regulations of both sides. For this reason, I recommend my thesis to all those working in civilian and military organisations dealing with the crisis aspects of health care management at prehospital, hospital or national strategic level, as our common goal is to develop national resilience through effective care in such situations.

I also recommend my thesis to professionals and doctors working in emergency care and military medicine, as it will not only provide them with direct professional insights, but also enable them to study and help set the direction, theme and pace for further developments, research and scientific publications.

I commend the results of my research to all academic researchers who are exploring the possibilities for further direct development of domestic civil-military health cooperation, whether from a direct health, military or legal perspective. In further research, I also consider it appropriate to separate the research directions of prehospital, hospital and regional care organisation.

I also recommend my thesis to colleagues working on the health care organization side who are planning to develop a system of health emergency planning for mass care in the field and specifically for inpatient medical institutions in the country, or are concerned with the development of legal regulations for such plans, by summarizing and reconciling civilian and military experience and finding common intersections between civilian and military regulations. One of the main conclusions of my research is that the development of a dynamic

planning system, rather than the current static planning system, can clearly contribute to the security of care in this area as well.

I commend the results of my research to colleagues in the Hungarian Defence Forces and the Hungarian Defence Forces Health Centre who are looking for possible ways of high-level civil-military health integration, for whom the military health liaison, as formulated and tested through exercises in my thesis, could serve as a development direction.

I further hope that what I have described here will serve as inspiration to identify further capability development goals, to innovate field, hospital and strategic level health emergency operations and care management, and to initiate new health professional and academic research.

THE PRACTICAL APPLICABILITY OF RESEARCH RESULTS

Throughout my research and in my thesis, I had the clear intention to translate the scientific results of my research into practical solutions to further increase the resilience of our healthcare system by exploiting the potential of domestic civil-military health cooperation and by the proposed capacity building. As a result of the practical focus, as summarised in the second chapter of my thesis, the development of the Hungarian Defence Medical Centre's rapid response medical capability has been initiated, with the procurement process being launched through the funds provided by the Hungarian Defence Forces Command for this purpose.

It was of direct practical significance, saving lives, that in the crisis situation caused by the coronavirus epidemic, and in the face of the extremely difficult procurement capacities, the conditions for the domestic production of a critical medical device, a ventilator, were created with my assistance.

Among the results of my research, my proposal for the revision of the health emergency plans of hospitals and the relevant legal regulations, with special regard to the draft Hungarian website for hospitals, which is to be created to assist planning, training and practice, and which is proposed on the model of the English EPRR, is directly useful.

I attach great practical importance to the forms of civil-military cooperation under consideration, to my proposals for strengthening the Hungarian system of medical reservists, and to the idea of a military-civilian liaison office, which would be intended to convey to hospitals and medical officers the aspects of military planning, logistics and military medical experience that can be applied to the civilian care system in special legal periods, further strengthening civil-military cooperation in our country.

My thesis can help to formulate future directions for improvement, be it on the field or in hospital care management. A detailed review and evaluation of the legal regulations affecting the care system as a whole, and a record of the proposed changes, can also aid the work of legislators.

LIST OF PUBLICATIONS

Book Chapters:

- dr. Péter, Ádám: Tömeges ellátás szervezése Gyermeksürgősségi Osztályon. (Könyvfejezet) Nagy Anikó; Bognár, Zsolt (szerk.) Gyermeksürgősségi ellátás. Medicina Könyvkiadó Zrt. (2023) 590 p. p. 547
- dr. Péter, Ádám: Sugárzó, biológiai és vegyi harci anyagok által sérültek első ellátása gyermeksürgősségi osztályon (Könyvfejezet) Nagy, Anikó; Bognár, Zsolt (szerk.) Gyermeksürgősségi ellátás.Medicina Könyvkiadó Zrt. (2023) 590 p. p. 49

Periodicals published in hungarian and english

- 1. dr. Péter Ádám, dr. Zsíros Éva, dr. Budán Zsuzsanna: Az Adaptive Hussars 2023 gyakorlat katona-egészségügyi kihívásai HONVÉDORVOS (2024) megjelenés alatt
- dr. Péter Ádám: Professzionális lélegeztetőgép gyártás Magyarországon: ezer készülék az intenzív osztályok számára ANESZTEZIOLÓGIA ÉS INTENZÍV TERÁPIA 1 p. 1 (2021)
- 3. dr. Péter Ádám: Az egészségügyi ellátórendszerrel kapcsolatos lehetséges elvárások vegyi, illetve biológiai fegyverek alkalmazása esetén HONVÉDORVOS 70: 3-4 pp. 52-66., 15 p. (2018)
- dr. Ádám, Péter, dr. Ferenc, Orosz, dr. Éva, Zsíros: Hungarian Army Role 2 Capability: From Concept to Realisation HADTUDOMÁNYI SZEMLE 16: 1 pp. 99-114., 15 p. (2023)

- 5. dr. Péter Ádám, dr. Zsíros Éva, dr. Fejes Zsolt: Havanna szindróma új típusú, fókuszált, pulzatilis rádiófrekvenciás támadás és annak egészségügyi következményei HONVÉDORVOS 73: 1-2 pp. 20-28., 9 p. (2021)
- 6. dr. Fejes Zsolt, dr. Kopcsó István, dr. Zsíros Éva, dr. Péter Ádám, dr. Balázs Péter: Egészségügyi képességtervezés a COVID-19 pandémia időszakában HONVÉDORVOS 72: 1-2 pp. 7-20., 14 p. (2020)
- 7. dr. Péter Ádám: Panther 5 A magyar gyártású, professzionális, sokoldalú lélegeztetőgép HADMÉRNÖK 16: 2 pp. 221-236., 16 p. (2021)
- dr. Dobos Attila, dr. Kiss Attila, dr. Péter Ádám, dr. Zsíros Éva: Az Eufor Althea misszió forgószárnyas légimentésének és légi kiürítő képességének megteremtéséről HONVÉDORVOS (0133-879X): (2023) megjelenés alatt
- dr. Adam Peter, dr. Ferenc Orosz, dr. Eva Zsiros: Hungarian Army Role 2 Capability: From Concept to Realisation HADTUDOMÁNYI SZEMLE 16: 1 pp. 99-114, 15 p. (2023)

Scientific talks:

- 1. 2007. november Magyar Sürgősségi Orvostani Társaság poszter és előadás
- 2. 2008. Semmelweis Egyetem PhD konferencia előadás
- 3. Magyar Gyermekintenzív Terápiás Társaság konferencia: előadás 2011. március
- 4. Magyar Gyermekkardiológiai Társaság konferencia: előadás 2011. szeptember
- 5. Magyar Gyermekorvosok Társasága éves Nagygyűlés: előadás 2012. szeptember
- 6. Légimentő Vándorgyűlés: előadás 2013. november
- 7. Magyar Életbiztosítási Orvostani Társaság kongresszus: előadás 2015. május
- Magyar Gyermekaneszteziológiai intenzív terápiás társaság kongresszus: előadás 2015. május
- 9. Mentőtiszti Kongresszus Füzesgyarmat: előadás 2015. október
- Magyar Aneszteziológiai és Intenzív Terápiás Társaság kongresszus: előadás 2017.
 május
- 11. Magyar Életbiztosítási Orvostani Társaság kongresszus: előadás 2017. október

- 12. WCNA2018 nehéz légút workshop instruktor 2018. június
- 13. NATO CBRN Consequence Management tanfolyam előadás 2018. október
- 14. MH EK Főszakorvosi konferencia előadás 2018. október
- Magyar Sürgősségi Orvostani Társaság konferencia: előadás és workshop instruktor
 2018. november
- 16. HM BM Tudományos Nap előadás 2018. november
- 17. MH ÖHP MEDEVAC tanfolyam előadás 2018. december
- 18. A hadtudomány és a 21. század konferencia, előadás 2019. február
- 19. NATO CBRN Excellence Centre felkért előadás 2019. április
- Magyar Aneszteziológiai és Intenzív Terápiás Társaság kongresszus előadás 2019.
 május
- 21. Regionális anesztézia a különleges katonák világában előadás 2019. július
- 22. MH EK Főszakorvosi konferencia előadás 2019. október
- 23. NATO CBRN Excellence Centre felkért előadás 2021. május
- 24. Magyar Katonai-Katasztrófaorvostani társaság felkért előadás 2021. szeptember
- 25. Sürgősségi, Intenzív Terápiás, Aneszteziológiai Szakterületek és Társszakmák Országos Kongresszusa előadás 2022. szeptember
- 26. Sürgősségi, Intenzív Terápiás, Aneszteziológiai Szakterületek és Társszakmák Országos Kongresszusa előadás 2023. március
- Magyar Aneszteziológiai és Intenzív Terápiás Társaság kongresszus előadás 2023.
 május
- 28. NATO COEMED előadás 2023 október
- 29. Visegrad Military Medicine Congress előadás 2023. november

THE DOCTORAL CANDIDATE'S PROFESSIONAL AND ACADEMIC BIOGRAPHY

Name: dr. Péter Ádám

Place and date of birth: Budapest, 1979. július 20.

Studies:

He graduated cum laude from the Faculty of General Medicine of Semmelweis University in

2004, with a specialization in infant and paediatrics in 2010 and in anaesthesiology and

intensive care in 2014 with excellent results.

Professional career:

He started his professional practice at the National Ambulance Service during his

university years, and after graduation in 2004 he joined Heim Pal Hospital, mainly working in

the Pediatric Intensive Care and Pediatric Emergency Departments. After completing his

specialisation in Infant and Paediatrics there, he worked in the Paediatric Intensive Care Unit

at St. László Hospital, and since 2011 at the Central Anaesthesia and Intensive Care Unit of the

MH EK Honvédkórház, and its successor, the North Pest Centre Hospital - Honvédkórház. In

March 2020, he became the Deputy Head of the department, and in June 2024, he was promoted

to the Head of Department. He worked as a civilian until 2018, after which he started his

military career as a contractor.

He is a member of the Scientific Council of the Interdepartmental Coordination

Committee for Disaster Management, the Technical Scientific Section for Nuclear Accident

Management of the Scientific Council of the Interdepartmental Coordination Committee for

Disaster Management, and a member of the Department of Defence, Disaster and Law

Enforcement Medicine at Semmelweis University.

Language skills:

English (B2) and German (B2).

Scientific activity:

Since 2005, he has been a regular speaker at national congresses and conferences, first in

paediatrics, then in emergency medicine, and anaesthesiology and intensive care. He is a

regularly invited speaker at national and international conferences and courses on military

medicine.

Budapest, 2024.augusztus 24.

dr. Ádám Péter

17