STRATEGIC MEDICAL EVACUATIONS OF THE PERSONNEL OF POLISH MILITARY CONTINGENTS

Strategiczne ewakuacje medyczne personelu Polskich Kontyngentów Wojskowych

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Abstract

Introduction and objective: Diseases and Non-Battle Injuries are the main reason for Strategic Medical Evacuations (STRATMEDEVAC) in Polish Military Contingents in Romania, Latvia, Kosovo, and Bosnia and Herzegovina. From 2021, there is no requirement for Polish soldiers to attend a health assessment by the Medical Evaluation Boards (MEB) before deployment to Polish Military Contingents in Europe or the NATO states. This study aimed to estimate the impact of the abolition of compulsory health assessments by the MEB on the number of STRATMEDEVAC and deaths in Polish Military Contingents. **Material and methods:** The analysis of medical evacuations of Polish soldiers performed in the years 2018–2019 (the period before the change in health assessment regulations) was compared to STRATMEDEVAC in 2022–2023 from Polish Military Contingents in Romania, Latvia, Kosovo, Bosnia and Hercegovina. **Results:** In 2022–2023, there was an increase in the incidence rate of losses in the category of Diseases and Non-Battle Injuries instigating STRATMEDEVAC (IRR = 2.07, p = 0.006). There were not any statistically significant differences in either the category of Diseases (counted separately with the results: IRR = 1.58, p = 0.26) or STRATMEDEVAC requiring a medical team with a dedicated aircraft (IRR = 1.23, p = 0.66) or total mortality rate including all causes of death in Polish Military Contingents (IRR = 0.99, p = 0.99). **Conclusions:** It is probable the preventive influence of soldiers' health assessments before deployment to military operations affects the rate of non-battle injuries. However, to estimate it, a detailed assessment of the individual certificates issued by the MEB must be conducted.

Streszczenie

Wprowadzenie i cel: Choroby i urazy niezwiązane z walką stanowią główną przyczynę strategicznej ewakuacji medycznej (ang. *strategic medical evacuations*, STRATMEDEVAC) personelu Polskich Kontyngentów Wojskowych stacjonującego w Rumunii, Łotwie, Kosowie oraz Bośni i Hercegowinie. Od 2021 r. polscy żołnierze, planowani do służby w Polskich Kontyngentach Wojskowych rozlokowanych w Europie lub w państwach NATO, nie są kierowani do wojskowych komisji lekarskich w celu określenia stanu zdrowia przed rozpoczęciem pełnienia zadań mandatowych poza granicami państwa. Celem pracy było oszacowanie wpływu braku określenia stanu zdrowia żołnierzy w wojskowych komisjach lekarskich na liczbę wykonanych STRATMEDEVAC oraz przypadków śmierci w Polskich Kontyngentach Wojskowych. **Materiał i metody:** Dokonano analizy porównawczej ewakuacji medycznych polskich żołnierzy zrealizowanych w latach 2018–2019 (okres przed zmianą przepisów o zniesieniu skierowań żołnierzy do wojskowych komisji lekarskich) z ewakuacjami w latach 2022–2023 z Polskich Kontyngentów Wojskowych w Rumunii, Łotwie, Kosowie oraz Bośni i Hercegowinie. **Wyniki:** W latach 2022–2023, w porównaniu z latami 2018–2019, nastąpił wzrost liczby strategicznych ewakuacji medycznych z powodu chorób i urazów niezwiązanych z walką (IRR = 2,07, p = 0,006). Nie zanotowano istotnej statystycznie zmiany w osobno analizowanej kategorii chorób (IRR = 1,58, p = 0,26) oraz STRATMEDEVAC z asystą medyczną w postaci zespołu ewakuacji medycznej (IRR = 1,23, p = 0,66) oraz umieralności z powodu jakiejkolwiek przyczyny w Polskich Kontyngentach Wojskowych (IRR = 0,99, p = 0,99). **Wnioski:** Istnieje prawdopodobieństwo prewencyjnego wpływu badań żołnierzy w wojskowych komisjach lekarskich przed wyjazdem do służby poza granicami państwa na częstość występowania urazów niezwiązanych z walką wśród uczestników Polskich Kontyngentów Wojskowych. Do oszacowania tego wpływu niezbędna jest szczegółowa ocena wydawanych przez wojskowe komisje lekarskie orzeczeń lekarskich.

Keywords: strategic medical evacuations; Military Evaluation Boards; Polish Military Contingents

Słowa kluczowe: strategiczna ewakuacja medyczna; wojskowe komisje lekarskie; Polskie Kontyngenty Wojskowe

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Introduction

Polish Military Contingents (PMC) have a unique way of protecting the troops stationed abroad. While most elements of the medical readiness of levels 1 to 3 differ in each operation (most commonly it is a combination of own forces, international allied forces, and support of the hosting country), two tasks are always a national responsibility: strategic medical evacuations (STRATMEDEVAC) to Poland and treatment and rehabilitation on level 4 outside the theater of war. PMC Iraq is an exception, where the strategic medical evacuation may be conducted by both Polish Armed Forces to Poland, and by the allies to Ramstein Air Base in Germany. STRATMEDEVAC is a kind of medical evacuation from the operational area of responsibility to a home country or another safe location [1]. For this purpose, the Polish Armed Forces mainly use the C-295M CASA aircraft with a medical evacuation team (MET) (the team selection depends on the specific strategic medical evacuation). For the patients in the dependency category 4 (minimal dependency) [2] who are unable to continue due to health reasons but do not require medical supervision during air transport, hybrid solutions of Medical Evacuation (MEDEVAC) / Casualty Evacuation (CASEVAC) are in place. In this type of evacuation, transport to the airport and from the airport to a hospital in Poland is with medical supervision combined with a commercial flight or a standard PMC cargo or personnel flight.

Article 6 of the Act Changing the Act on Particular Solutions Connected with Prevention, Counteraction, and Fight against COVID-19, Other Infectious Diseases and Crisis Situations Caused by Them of 21st January 2021, and some other statutes limited the requirement of referring military personnel to the MEB before professional military service deployment to non-European countries and non-European countries which are not a State Party of the North Atlantic Treaty Organization (it was followed by entering the abovementioned provisions unchanged in Article 190(2)(5) of the Homeland Defence Act). It means that from 21st January 2021 in the following PMCs, the soldiers are not required to be sent to the MEB:

- PMC KFOR (Kosovo),
- PMC EUFOR (Bosnia and Herzegovina),
- PMC Latvia,
- PMC Romania,
- PMC IRINI (Sicily),
- PMC Turkey,
- PMC ORLIK (Lithuania, Estonia).

These are the following traditional types of casualties in Polish medical readiness doctrine [3]:

- killed in action (KIA),
- captured and missing in action (CMIA),
- wounded in action (WIA),
- battle stress (BS),
- disease and non-battle injuries (DNBI).

The DNBI category casualties are one of the major problems faced by medical planners during the preparation of the PMC or military training. The DNBI were the main reason for hospitalization during the Second World War, the Vietnam War, and both Gulf Wars [3–5]. Analogously, between 2001 and 2013 during the operation *Enduring Freedom* in Afghanistan, the incidence density (ID) for the strategic medical evacuation of the U.S. Forces personnel in the category of diseases, non-battle injuries, and battle injuries were 28.6/1000, 18.1/1000, and 12.0/1000 person-years respectively [6]. Slightly lower ID rates, still with the prevalence of the DNBI over wounded in action, were observed from 2003 to 2013 in the *Iraqi Freedom* and *New Dawn* operations for the strategic medical evacuation of the U.S. Forces personnel, i.e. 24.0/1000 person-years in the diseases category, 16.3/1000 person-years for the non-battle injuries, and 7.7/1000 person-years for the wounded in action [6–8]. In the data used for this research, the casualties in Polish Military Contingent in the years 2018–2019 and 2022–2023 consisted solely of the DNBI category and cases of death due to diseases which according to the doctrine [9] should be included in the died-on operations (DOO) category.

The objective of the research was to estimate the influence of the lack of health assessments of soldiers by the MEB on the number of performed STRATMEDEVAC and cases of death at the Polish Military Contingent.

Materials and methods

A comparative analysis of Polish soldiers' medical evacuations in 2018–2019 (the period before the change of the regulations on referrals of soldiers to the Military Medical Boards) and the evacuations in 2022–2023 from Polish Military Contingents in Romania, Latvia, Kosovo (KFOR) and Bosnia and Herzegovina (EUFOR) was conducted. The years 2020–2021 were purposely disregarded to eliminate the influence of the COVID-19 pandemic, and due to the transitory nature of the regulations on obligatory MEB presence in 2021. The following contingents were not included in the analysis: PMC IRINI and PMC Turkey (due to the shortness of the missions), and PMC ORLIK (due to irregularity of the mission). The control group consisted of PMC IRAQ personnel who were still required to complete the health assess-

Table 1. Average number of military personnel in Polish Military Contingents (PMC) in the respective years and the number of person-years

PMC	Average number of military personnel in 2018–2019	Average number of military personnel in 2022–2023	Number of person-years in 2018–2019	Number of person-years in 2022–2023
Romania	220	225	440	450
Latvia	171	176	342	352
KFOR	253	247	506	494
EUFOR	43	48	86	96
Iraq	195	239	390	478

ments at the MEB (tab. 1). Each PMC rotation lasted 6 to 7 months, after which a replacement of staff flying from Poland would occur.

Statistical methods

The statistical analysis was conducted using MedCalc Software Ltd. Comparison of two rates. https:/www.medcalc.org/calc/rate_comparison.php (Version 22.019, accessed February 2024). The result was presented as ID and the comparison of the population endangered by the lack of preventive influence of the MEB assessments in the years 2022–2023 with the not-endangered population in the years 2018–2019 was expressed as incidence rate ratio (IRR). For the IRR evaluation, a Chi^2 test was used, and the statistical validity level was established at $p < 0.05$. In the occurrence of the value '0', the IRR was not reported.

Results

In the years 2018–2019 and 2022–2023, the following types of casualties resulted in the strategic medical evacuation (terminology according to Polish medical readiness doctrine [9]):

- diseases (D) – diseases including mental disorders such as acute reaction to stress and post-traumatic stress disorder (PTSD). Also, no battle injuries (BS) were noted in the analysis,
- non-battle injuries (NBI),
- died-on operations (DOO).

Additionally, in the D and NBI categories, the aircraft medical evacuations with the medical evacuation team (MET) were isolated and presented separately.

In PMC Romania, Latvia, EUFOR, and KFOR in 2022–2023 (the period after the abolition of referrals of soldiers to the MEB before commencing service in the Polish Military Contingent), the incidence density of casualties in the DNBI category increased in comparison to the years 2018–2019 (ID 30.17/1000 person-year vs. 14.56/1000 person-year, IRR = 2.07, $p = 0.006$).

Also, the incidence density increased separately in the NBI category (ID 18.68/1000 person-year in 2022–2023 *vs* ID 7.28/1000 person-year in 2018–2019, IRR = 2.57, $p = 0.008$). No statistically significant changes in incidence density in the DNBI subcategory instigating a strategic medical evacuation with a MET with a specialist aircraft, or in the D category instigating a general strategic military evacuation or a strategic military evacuation with a MET with a specialist aircraft. In the D category, there were 2 cases of mental disorders, reaction to stress or PTSD in the interview (in PMC KFOR in 2018 and PMC Romania in 2023) (tab. 2).

In PMC Romania in 2022–2023, the incidence density of casualties in the DNBI category instigating a STRATMEDEVAC was 33.33/1000 person-years, and in 2018–2019 it was 29.55/1000 person-years. At the same time, no statistically significant change in the incidence density of casualties was observed in the DNBI, D, and NBI categories instigating a STRATMEDEVAC (tab. 3).

Among the researched PMCs, the incidence density of casualties in the DNBI category instigating a strategic medical evacuation in 2022–2023 in comparison to 2018–2019 was in PMC Latvia (incidence density ID 51.14/1000 person-years vs. ID 8.77/1000 person-years, IRR = 5.83, $p = 0.001$). The incidence density also increased in the separate NBI category (ID 34.09/1000 person-years vs. ID 8.77/1000 person-years, IRR = 3.89, $p = 0.024$). No statistically significant changes in incidence density in the DNBI category instigating a STRATMEDEVAC with a MET with a specialist aircraft, or in the D category instigating a general strategic medical evacuation and STRATMEDEVAC with a MET with a specialist aircraft (tab. 4).

In PMC KFOR in 2022–2023, the incidence density of casualties in the DNBI category that instigated a STRATMEDEVAC was 14.17/1000 person-years and, in 2018–2019 was 5.93/1000 person-years. At the same time, there were not any statistically significant changes in incidence density in the DNBI, D, and NBI categories that instigated a STRATMEDEVAC (tab. 5).

Table 2. STRATMEDEVAC from Polish Military Contingents Romania, Latvia, EUFOR, and KFOR in 2018–2019 and 2022–2023

Type of evacuation		2018–2019 (ID)	2022–2023 (ID)	IRR (*p*)
STRATMEDEVAC due to DNBI	**Total**	20 (14 .56/1000 person-years)	42 (30.17/1000 person-years)	2.07 ($p = 0.006$)
	With the use of the MET	8 (5.82/1000 person-years)	10 (7.18/1000 person-years)	1.23 ($p = 0.66$)
STRATMEDEVAC due to D	**Total**	10 (7.28/1000 person-years)	16 (11.49/1000 person-years)	1.58 ($p = 0.26$)
	With the use of the MET	6 (4.37/1000 person-years)	4 (2.87/1000 person-years)	0.66 ($p = 0.54$)
STRATMEDEVAC due to NBI	**Total**	10 (7.28/1000 person-years)	26 (18.68/1000 person-years)	2.57 ($p = 0.008$)
	With the use of the MET	2 (1.46/1000 person-years)	6 (4.31/1000 person-years)	2.96 ($p = 0.18$)

D – diseases; DNBI – disease and non-battle injuries; ID – incidence density; IRR – incidence rate ratio; NBI – non-battle injuries; STRATMEDEVAC – strategic medical evacuation; MET – medical evacuation team

In PMC EUFOR in 2022–2023, the incidence density of casualties in the DNBI category instigating a STRATMEDEVAC was 20.83/1000 person-years and, in 2018–2019 was 11.36/1000 person-years. At the same time, there were not any statistically significant changes in incidence density in the DNBI, D, and NBI categories that instigated a STRATMEDEVAC (tab. 6).

In PMC IRAQ (the control group) in 2022–2023, the incidence density of casualties in the DNBI category instigating a STRATMEDEVAC was 12.55/1000 person-years and, in 2018–2019 was 15.38/1000 person-years. At the same time, there were not any statistically significant changes in incidence density in the DNBI, D, and NBI categories instigating a STRATMEDEVAC. In the D category, a case of mental disorder, reaction to stress, or PTSD in the interview was accounted (2023) (tab. 7).

There were not any statistically significant changes in mortality rate due to all causes of death in PMC Romania, Latvia, KFOR, and EUFOR in 2022–2023 in comparison to 2018–2019 (tab. 8).

There were not any occurrences of death of Polish soldiers in the control group (PMC Iraq) in 2018–2019 and 2022–2023.

The incidence density of casualties in the DNBI category instigating a STRATMEDEVAC in PMC Romania, Latvia, KFOR, and EUFOR increased after the referral of soldiers for health assessments by the MEB was relinquished (IRR = 2.07, $p = 0.006$). However, the author finds the direct connection between the increase and the lack of preventive influence of the MEB is debatable as it is caused mainly by the increased number of the NBIs (IRR = 2.57, $p = 0.0085$), not by the D category, for which the increase was statistically insignificant (IRR = 1.58, $p = 0.26$), and on which the MEB could have a preventive influence, e.g. elimination of soldiers with chronic disorders. The mortality rate with all causes of death did not increase in the researched PMCs in 2022–2023 in comparison to 2018–2019 (RR = 0.99, $p = 0.99$). No statistically significant increase occurred in the incidence density of casualties in the DNBI category instigating a strategic military evacuation with MET with

Table 3. STRATMEDEVAC from Polish Military Contingent Romania in 2018–2019 and 2022–2023

Type of evacuation		2018–2019 (ID)	2022–2023 (ID)	IRR (*p*)
STRATMEDEVAC due to DNBI	**Total**	13 (29.55/1000 person-years)	15 (33.33/1000 person-years)	1.13 ($p = 0.75$)
	With the use of the MET	5 (11.36/1000 person-years)	7 (15.56/1000 person-years)	1.37 ($p = 0.61$)
STRATMEDEVAC due to D	**Total**	6 (13.64/1000 person-years)	7 (15.56/1000 person-years)	1.14 ($p = 0.82$)
	With the use of the MET	3 (6.82/1000 person-years)	3 (6.67/1000 person-years)	0.98 ($p = 0.98$)
STRATMEDEVAC due to NBI	**Total**	7 (15.91/1000 person-years)	8 (17.78/1000 person-years)	1.12 ($p = 0.84$)
	With the use of the MET	2 (4.54/1000 person-years)	4 (8.89/1000 person-years)	1.96 ($p = 0.47$)

D – diseases; DNBI – disease and non-battle injuries; ID – incidence density; IRR – incidence rate ratio; NBI – non-battle injuries; STRATMEDEVAC – strategic medical evacuation; MET – medical evacuation team

Table 4. STRATMEDEVAC from Polish Military Contingent Latvia in 2018–2019 and 2022–2023

Type of evacuation		2018–2019 (ID)	2022–2023 (ID)	IRR (*p*)
STRATMEDEVAC due to DNBI	**Total**	3 (8.77/1000 person-years)	18 (51.14/1000 person-years)	5.83 ($p = 0.001$)
	With the use of the MET	-	1 (2.84/1000 person-years)	-
STRATMEDEVAC due to D	**Total**	-	6 (17.05/1000 person-years)	-
	With the use of the MET	-	-	-
STRATMEDEVAC due to NBI	**Total**	3 (8.77/1000 person-years)	12 (34.09/1000 person-years)	3.89 ($p = 0.024$)
	With the use of the MET	-	1 (2.84/1000 person-years)	-

D – diseases; DNBI – disease and non-battle injuries; ID – incidence density; IRR – incidence rate ratio; NBI – non-battle injuries; STRATMEDEVAC – strategic medical evacuation; MET – medical evacuation team

Table 5. STRATMEDEVAC from Polish Military Contingent KFOR in 2018–2019 and 2022–2023

Type of evacuation		2018–2019 (ID)	2022–2023 (ID)	IRR (*p*)
STRATMEDEVAC due to DNBI	**Total**	3 (5.93/1000 person-years)	7 (14.17/1000 person-years)	2.39 ($p = 0.21$)
	With the use of the MET	2 (3.95/1000 person-years)	1 (2.02/1000 person-years)	0.51 ($p = 0.64$)
STRATMEDEVAC due to D	**Total**	3 (5.93/1000 person-years)	2 (4.05/1000 person-years)	0.68 ($p = 0.71$)
	With the use of the MET	2 (3.95/1000 person-years)	-	-
STRATMEDEVAC due to NBI	**Total**	-	5 (10.12/1000 person-years)	-
	With the use of the MET	-	1 (2.02/1000 person-years)	-

D – diseases; DNBI – disease and non-battle injuries; ID – incidence density; IRR – incidence rate ratio; NBI – non-battle injuries; STRATMEDEVAC – strategic medical evacuation; MET – medical evacuation team

Table 6. STRATMEDEVAC from Polish Military Contingent EUFOR in 2018–2019 and 2022–2023

Type of evacuation		2018–2019 (ID)	2022–2023 (ID)	IRR (*p*)
STRATMEDEVAC due to DNBI	**Total**	1 (11.36/1000 person-years)	2 (20.83/1000 person-years)	1.79 ($p = 0.69$)
	With the use of the MET	1 (11.36/1000 person-years)	1 (10.42/1000 person-years)	0.90 ($p = 0.95$)
STRATMEDEVAC due to D	**Total**	1 (11.36/1000 person-years)	1 (10.42/1000 person-years)	0.90 ($p = 0.95$)
	With the use of the MET	1 (11.36/1000 person-years)	1 (10.42/1000 person-years)	0.90 ($p = 0.95$)
STRATMEDEVAC due to NBI	**Total**	-	1 (10.42/1000 person-years)	-
	With the use of the MET	-	-	-

D – diseases; DNBI – disease and non-battle injuries; ID – incidence density; IRR – incidence rate ratio; NBI – non-battle injuries; STRATMEDEVAC – strategic medical evacuation; MET – medical evacuation team

Table 7. STRATMEDEVAC from Polish Military Contingent Iraq in 2018–2019 and 2022–2023

Type of evacuation		2018–2019 (ID)	2022–2023 (ID)	IRR (*p*)
STRATMEDEVAC due to DNBI	**Total**	6 (15.38/1000 person-years)	6 (12.55/1000 person-years)	0.82 ($p = 0.73$)
	With the use of the MET	1 (2.56/1000 person-years)	1 (2.09/1000 person-years)	0.82 ($p = 0.90$)
STRATMEDEVAC due to D	**Total**	4 (10.26/1000 person-years)	3 (6.28/1000 person-years)	0.61 ($p = 0.54$)
	With the use of the MET	1 (2.56/1000 person-years)	1 (2.09/1000 person-years)	0.82 ($p = 0.90$)
STRATMEDEVAC due to NBI	**Total**	2 (5.13/1000 person-years)	3 (6.28/1000 person-years)	1.22 ($p = 0.85$)
	With the use of the MET	-	-	-

D – diseases; DNBI – disease and non-battle injuries; ID – incidence density; IRR – incidence rate ratio; NBI – non-battle injuries; STRATMEDEVAC – strategic medical evacuation; MET – medical evacuation team

Table 8. Number of deaths in Polish Military Contingents (PMC) Romania, Latvia, KFOR, and EUFOR in 2018–2019 i 2022–2023

	2018–2019 (ID)	2022–2023 (ID)	IRR (*p*)
Number of deaths in PMC	1 (0.73/1000 person-years)	1 (0.72/1000 person-years)	0.99 (*p* = 0.99)
ID – incidence density; IRR – incidence rate ratio			

a specialist aircraft (RR = 1.23, *p* = 0.67). It is an important factor due to the high cost borne by the Armed Forces during this type of evacuation.

Commentary

In the study conducted, losses from the NBI category accounted for the majority of the reasons for STRATMEDEVAC of the Polish Armed Forces personnel stationed in PMC Romania, Latvia, Kosovo, and Bosnia and Herzegovina, 50% in 2018–2019 and 62% in 2022–2023, respectively. These data do not coincide with U.S. Forces Health Service data for soldiers serving in Operation *Enduring Freedom* in Afghanistan (31% of losses), and *Iraqi Freedom* and *New Dawn* in Iraq (34% of losses) [6–8]. Analogous data comes from French sources, where STRATMEDEVAC among French Armed Forces personnel participating in operations in Lebanon, Afghanistan and Côte d'Ivoire for losses in the NBI category was 38% [10]. Key to understanding this discrepancy may be the same article, which indicated that in non-combat operations the incidence of NBI increases significantly in the absence of STRATMEDEVAC for evacuations from the WIA category [10]. Similarly, in PMC, there were no evacuations from the WIA category in the years analyzed mainly due to the relatively safe military situation in the theater of operations involving Polish soldiers. A study by Hall et al. [11] analyzed STRATMEDEVAC due to DNBI from 2017–2021 in USCENTCOM and USAFRICOM-led operations. Evacuations from the NBI category accounted for 18% for USCENTCOM and 15% for USAFRICOM, respectively. Evacuations for psychiatric reasons accounted for as much as 27% in USCENTCOM operations and 12% in USAFRICOM operations. In the same study, the incidence of sanitary losses from the DNBI category was 1.0–5.2/1000 person-months for USAFRICOM and 1.1–2.8/1000 person-months for USCENTCOM. While the results in the analyzed PMCs fall within the above ranges (incidence in 2022–2023 of 30.17/1000 person-years vs. 14.56/1000 person-years in 2018–2019), the results for STRATMEDEVAC for psychiatric reasons in the PMCs are completely different (5% in 2018–2019 vs. 2.4% in 2022–2023), which can be explained by the less onerous service conditions of Polish soldiers. In a publication on the qualification of U.S. Forces soldiers for military service, the authors point out that U.S. medical boards often issue negative rulings for those with a history of injuries and specialized treatment related to musculoskeletal injuries [12]. Meanwhile, another study found that during service recruitment, 4% of active personnel may not be referred for surgery due to musculoskeletal injuries, accounting for as much as 65% of all reasons for soldiers' inability to serve in the theater of operations [13]. It can be assumed that there are similar health problems for soldiers in the Polish Armed Forces related to musculoskeletal injuries, and at the same time, due to the abolition of the obligation to assess the health of soldiers in the MEB before they are sent to serve in the PMC, personnel are being sent to the area of military operations who, burdened by medical history, may weaken the combat capability of their own troops and contribute to an increase in medical evacuations to the country due to NBI resulting from the injuries that occur. Unfortunately, the lack of statistical data on negative medical certificates issued by the MEB limits the ability to estimate the scale of the problem.

Conclusions

There is likely to be a preventive influence of the examination of soldiers by the MEB prior to their deployment for service abroad on the incidence of non-combat-related injuries among PMC participants. A detailed assessment of the medical certificates issued by the MEB is needed to estimate this impact. The Polish Armed Forces have a responsibility for prevention, including the duty to provide a safe service environment and to educate soldiers serving in the PMC on injury prevention during duty assignments and sports.

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