

Abstract

Introduction: The State Medical Rescue System (SMRS) was established to provide assistance to any person whose health or life is in immediate danger. The main act regulating the function of the system is the Act of 8 September 2006 on the State Medical Rescue of the Journal of Laws 2020.882. With the entries made on order “emergency ambulance dispatch order card”, it is possible to conduct analyses of the trips carried out by Emergency Medical Teams (EMT). This includes assessments of the legitimacy of trips, the reasons for emergency calls, and demographics of patients using the services of the State Medical Rescue (SMR). The medical dispatcher plays an important role in recording data for the system and is responsible for tasks such as accepting reports, collecting interviews from the reporting persons, and making decisions to leave the emergency medical team with a basic or specialist medical professional.

Objective: The main goal of the study was to analyse the interventions implemented by the teams of the Provincial Ambulance Team (PAT) in Katowice in 2018.

Material and methods: The study was conducted using the medical documentation provided by the PAT in Katowice (i.e., emergency ambulance dispatch order card carried out in the period from 01/01/2018 to 31/12/2018). This documentation concerns cases that required the intervention of the PAT in Katowice according to the opinion of the medical dispatcher. First, the shared documentation was anonymised. Subsequently, the documentation was examined for the genders and ages of patients; dates and times of emergency calls; areas of EMT intervention (city or village); diagnoses made on the basis of the International Statistical Classification of Diseases and Health Problems, revision 10 (ICD-10); travel times; and decisions of the EMT teams about further treatment for the victims. Finally, cases with incomplete data were excluded from the study. After this preparation of the database documentation, the characteristics of the medical interventions by the PAT in Katowice in the period from 01/01/2018 to 31/12/2018 were investigated.

Results: A total of 211,548 cases were carried out by the PAT in Katowice in 2018, of which 20,042 interventions did not include the "gender" field. Therefore, 195,506 cases

were assessed, of which 94,445 cases had a female patient (49.28%) and 97,061 interventions had a male patient (50.62%). There were 17,851 interventions in non-urban areas (female patients – 8,672 vs. male patients – 9,179), and 173,665 interventions in the urban area – (female patients – 85,773 vs. male patients – 87,882; $\chi^2 = 4,28$; $p = 0,039$). The most common causes of the interventions were 'symptoms, disease features and abnormal results of clinical trials not elsewhere classified' (letter R according to ICD-10), 'specific effects of external factors' (letter S according to ICD-10), and 'cardiovascular diseases' (letter I according to ICD-10). The most frequent decision was to transport the patient to the hospital's emergency department, the second was to end the intervention at the scene and the third was to abandon medical rescue operations. the average arrival time to urban areas was 55 seconds \pm 3 minutes 29 seconds, whereas for rural areas it was 10 minutes and 11 seconds \pm 4 minutes and 17 seconds ($p < 0.05$).

Conclusions: It was confirmed that the time taken by EMT in 2018 to reach the emergency sites was shorter than required by the act. In conclusion, it can be observed that the Emergency Medical Services in Katowice function according to the intentions of the legislator. The obtained data also indicates a high societal awareness about the correct functioning and purpose of the Medical Emergency Team.

Keywords: International Statistical Classification of Diseases and Health Problems, State Medical Rescue, Provincial Ambulance Team, Medical Rescue Team