

SUMMARY

According to the publication authored by a team of experts led by Prof. Andrzej Basiński from the Medical University of Gdańsk, only 16% of adult patients received analgesic treatment during the intervention of primary emergency teams, whereas specialist emergency teams applied analgesic treatment at the prehospital stage in only 18%. At the request of the National Consultant in Emergency Medicine, Prof. Jerzy Robert Ładny, the Ministry of Health has prepared data on trauma diagnoses according to ICD 10 classification, including thermal and chemical burns. The data was prepared thanks to the Command Support System of the National Emergency Medical Service. The analysis covered the period from November 1, 2017 to April 30, 2018 (6 months). 547 interventions by emergency medical teams from all over Poland were included in the study (a total of approximately 1.6 million interventions occurred during the study period). In adults, analgesics were administered in 25.23% of cases and in children (<18 years of age) in 16.58% of cases, so it became an absolute priority to develop a standard for the treatment of pain of different causes and severity in an accessible form and to implement this standard in the form of good practice as a recommendation throughout the country.

The main objective of the study was to assess the quality of analgesic treatment in the conditions of emergency medical services in Podlaskie voivodship. The most significant document issued over the last years by the Ministry of Health, which was supposed to increase the use of analgesics by ambulance outpatient teams and increase the quality of services provided, was the so-called Good Practices of Pain Treatment in S and P Emergency Medical Teams issued in June 2019.

A thorough analysis of 1,800 charts of Medical Emergency Procedures, which were authored by system team leaders implementing trips to specific types and locations of patients' pain, allowed us to obtain answers to many questions related to the quality of pharmacotherapy use in the prehospital setting and to find out whether the recommendations of the Ministry of Health, introduced in June 2019, have increased the amount of analgesic use in the ED.

The research period was divided into the second half of 2019 and the first half of 2020, and the analysis was performed on trips carried out by employees of the Regional Ambulance Station in Białystok with substations. The results describing the actions of emergency teams in Podlaskie Province in 2019 were lower than the national average and the results of Prof. Andrzej Basinski in 2017, which initiated the problem of analgesia use in the Emergency

Medical Service, as it was only 17%. The results depicting the administration of analgesics in the first half of 2020 were higher, as an improvement of about 10% was observed with a result of 26% of trips where analgesics were administered to adults and 28% of the ERU interventions where analgesia was administered to pediatric patients, which still does not represent even 1/3 of trips for pain in which members of the ERU administer pain-relieving drugs. The use of pain intensity scales by system teams increased significantly in 2020 compared to the previous year. This was most visibly impacted by the December 2019 update to the PRM SWD system, which introduced mandatory assessment of the NRS scale when completing the MCzR card. An interesting finding was the more frequent use of pharmacotherapy by Primary Emergency Teams compared to Specialty Teams. The majority of patients describing pain as severe or extreme do not receive not only the recommended multimodal analgesia but even no analgesic treatment at all, and the introduced Good Pain Management Practices increased the supply of analgesics from below the national average to a maximum of 3%.

The increased supply of fentanyl in 2020 compared to the previous study period is satisfactory, although still no one is using intranasal delivery, which according to many studies presented in the paper by other authors, is a safe and equally effective way of delivery, especially to pediatric or senior patients.

Despite the recommendations and emphasis on the safety of acetylsalicylic acid in patients with suspected Acute Coronary Syndrome in the ERC 2021 guidelines, only 9% of emergency teams administer ASA in prehospital care. Multimodal analgesia, recommended in MZ documents and many articles in international scientific databases, still represents a small percentage of the management of patients presenting with severe and extreme pain.

Considering definitely unsatisfactory effect of MZ recommendations concerning use of analgesics in prehospital care, several ways of improving the results were recommended and alleged reasons of recommendations failure in Podlaskie voivodship were identified.

The biggest problem was found to be the lack of official procedures for prehospital care, by members of the ERU, which would allow verification of their behaviour and provide legal protection and unquestionable arguments of rescue proceedings from ED staff, to whom patients are most often transferred. Currently, members of ambulance teams have to work according to the law "in accordance with current medical knowledge", which is a provision that causes a lot of confusion and misunderstandings among all the people working as paramedics, system nurses or doctors.

Further factors affecting the low results of analgesic management in the presented work were the lack of any informational communication between the Ministry of Health and all employees of the State Medical Rescue Service. Developing e-mail lists of all employees and creating accounts on the most popular social networking sites would undoubtedly improve communication and the flow of "up-to-date medical knowledge" between Ministry experts and members of the Emergency Medical Services and EDs throughout Poland. On the other hand, printed Good Pain Management Practices should be an integral part of the equipment of each system ambulance. Additionally, it has been suggested that an expert position should be created in each dispatcher of ambulance services in Poland to verify selected MCzR cards in accordance with the latest recommendations and guidelines. The analysed results should be confronted with the authors of medical rescue actions charts on the principles of debriefing, learning and increasing the competence of all PRM employees.

Undoubtedly, implementation of the presented recommendations would have great chances to improve the quality of services provided by Medical Emergency Teams, including analgesic treatment, whose biggest subscriber would be the patient himself, i.e. the sponsor of the entire health care system in Poland.