# HISTORY OF THE STATE MEDICAL RESCUE SERVICE IN POLAND

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# ABSTRACT

The State Medical Rescue Service in Poland dates back to 1891, when the first ambulance service was established in Cracow. Over 129 years, the system has been fully transformed, starting with medical staff, through numbers, equipment, and modern information and communication systems for emergency calls and assistance during interventions, and medical records. Emergency medical services in Poland had their breakthrough when the current Act of 8 September 2006 on the National Medical Rescue Service was introduced, which is the foundation for the modern organisation of medical rescue and emergency medicine in Poland. According to the Ministry of Health, the total number of Emergency Medical Services Teams operating in 2019 was 1585, including those operating on a seasonal basis.

KEYWORDS: history of medical rescue, Poland, National Medical Rescue Service

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# **INTRODUCTION**

The organisation of emergency medical services is one of the most important issues in terms of the strategy of each country in the world. Although a variety of levels of such activities are noted, it should undoubtedly be stressed that this always concerns the health and life of people living in given administrative areas. Medical rescue (although at that time it probably did not bear such a name) has its roots in the beginning of mankind, where in the case of e.g. personal injury or sudden illness, another person brought help. Since the very beginning of history, people have been struggling with the forces of nature, trying to prevent diseases, trying to treat the injuries they suffered during hunting and while fighting enemies. The first ways to help with damage were to observe the natural world. With the development of humanity, the nature of threats has changed [1]. The modern form of this discipline is fully professional in nature and has thus

become an aspect attributed to almost every field in medicine and health sciences. The contemporary organised medical rescue system in Poland is called the National Medical Rescue Service. It should be stressed, however, that its current appearance has been evaluated over many years, and the experience of the past has made it possible to organise an efficient and professional system that brings together specialists and professional equipment, including education and IT systems.

# 1891-1948

The first ambulance service in Poland was established in 1891 in Cracow, and the organisers of the first ambulance service in Europe, the Vienna ambulance service in 1883, contributed to its creation. The Cracow ambulance service was located in the building of the fire brigade, where the then granted premises included the ambulance, waiting room, and a room for the

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students of the Jagiellonian University Medical Faculty, who were on duty here. The Krakow Voluntary Rescue Society was equipped with one ambulance, which was pulled by two horses, together with five stretchers for the patients. The symbol of the Society was a white cross on a blue background. Since 1904, the first duty was introduced and paid for, but it was not until 1911 that physicians, and not volunteers, were included. In 1908 the ambulance was equipped with four ambulances, a folding armchair, seven trunks used for accidents, and four pairs of stretchers. In 1950, the Krakow Voluntary Rescue Society ceased its activities, but a few months later it resettled in the Health House, where it remained until 1977. Then the Ambulance Service changed its location again, but this time to its own building, where it remains to this day [2]. Shortly after the Krakow ambulance service was established, ambulance stations were also established in Lvov (1893), Warsaw (1897), Łódź (1899), Lublin (1917), and Poznań (1928) [3-7]. On 27 November 1902, an ambulance service was established within the structure of the Fire Department in Bydgoszcz [8]. All established ambulances were independent, had legal personality, and were financed by social contributions, social insurance fees, donations made to them, their own resources, and city grants. These forms provided round-the-clock and free-of-charge assistance in all emergencies. In 1919 the Polish Red Cross Society was established. Its members provided assistance to people injured in warfare and ran medical facilities and ambulance stations. At that time, rescue teams were also established, sanitary training was conducted, and missing persons were sought. After World War II, specifically in the years 1948-1951, the health care infrastructure, consisting of 30 hospitals, 280 health clinics, and 177 ambulance stations, was taken over by the government from the Polish Red Cross and handed over to the Ministry of Health [9]. The administrative authorities divided the ambulance stations, taking into account the territorial division of Poland into urban, powiat, and provincial, with exit teams as well as outpatient ambulatories.

#### 1950-1999

In 1951, the Minister of Health issued the first document after the war, in which the principles of the operation and functioning of sanitary transport were defined [10]. After the administrative reform of the country in 1976, a new provision was created concerning the framework organisation of Provincial Sanitary Transport Columns [11], established as independent budgetary units created in each voivodship, and subject to the administrative competence of the voivodship. In the years 1990-1999 they were still units of a budgetary nature and a voivodship range. These organisational units ensured the fulfilment of transport needs for the entire health service. Their budget was determined for a given year in accordance with the Budget Act, and transport tasks were carried out within these measures. In 1992, the Ministry of Health purchased 80 modern ambulances, which were transferred free of charge to the Voivodship Sanitary Transport Columns located in individual voivodships. Since then, rescue operations could be carried out while the patient was being transported to hospital. In the years 1989–1999, due to the lack of legal regulations and limited financial resources, the functioning of those units left much to be desired. Thus, it can be unequivocally and critically stated that in those years there was no compact medical rescue system in Poland that would guarantee the provision of specialist assistance necessary to save life and health.

The 1950s also saw the arrival of sanitary aviation in Poland. In 1955, by decision of the Ministry of Health and Social Welfare, sanitary aviation was established for the benefit of the health service. Its organisation was entrusted by the then Minister of Health Rajmund Barański to an outstanding pilot, AK soldier, and Warsaw insurgent, Tadeusz Więckowski. Fifteen Sanitary Aviation Teams and the Central Sanitary Aviation Team in Warsaw were established. The teams were deployed in such a way as to cover the whole country. The tasks of the Sanitary Aviation Teams included transportation of the sick and wounded as well as medicines, blood, vaccines, and medical equipment. The Sanitary Air Force also performed flights to relocate consultant physicians to carry out complex medical procedures in distant hospitals in urgent cases of threat to human life or health. The basic crew of the airplanes and helicopters at the time were such people as a pilot and a feldsher or a nurse, and if a helicopter was used, an additional aviation mechanic. Later, during the transport of patients in very severe condition, the sick on board were cared for by physicians from local ambulance services or hospitals [12].

#### 1999-2006

The modern system of the State Medical Rescue has had a multi-stage process of creation. The

concept of the present system dates back to the 1990s. Poland, based on the experience of other countries, has cyclically implemented legal and systemic solutions, which were to result in the creation of a modern and coherent emergency medical system with a state dimension. In 1999, a health policy program called "Integrated Medical Rescue" entered into force, which was planned for the years 1999–2003. The fundamental goal of the program was to simultaneously prepare gualified medical personnel dedicated to this field of rescue, as well as the entire infrastructure, and to develop and implement procedures for the proper functioning of the emergency medical system throughout the country. In 2001 the programme was divided into six task packages. The main items to be coherently created by the State Medical Rescue included the creation of emergency call centres and hospital emergency wards, as well as a comprehensive and normatively equipped ambulances. A huge breakthrough in the creation of the State Medical Rescue was the first Act on the State Medical Rescue passed on 25 July 2001 [13]. Its provisions created the outline of the system, even though it regulated many issues only briefly. This act became the direction and foundation for the development of medical rescue in Poland at that time. However, it soon transpired that work was required to improve some of its solutions. The changes in its provisions, as well as the legislative process, lasted until 6 September 2006, while on 12 October the President of the Republic of Poland signed the amended act on medical rescue. According to the amended Act of 8 September 2006 on the State Medical Rescue Service, the system includes wheeled and air medical rescue teams, as well as hospital emergency departments, medical dispatcher's centres, and units cooperating with the system, including trauma centres for children and adults, thus creating a modern emergency medicine system [14].

On 3 March 2003, the Minister of Health withdrew the Central Sanitary Aviation Group, which was located in Warsaw at 5 Księżycowa Street, appointed by the Minister of Health on 3 September 1958 [15]. At the same time, a new formation was created, which in a comprehensive and coherent way organised the air medical rescue, called the Independent Public Health Care Institution — Helicopter Emergency Medical Service. For this purpose, the existing medical airborne medical units were transformed into 15 helicopter medical rescue bases. Moreover, the scope of service was extended because helicopters now also fly to emergencies and illnesses. In this way, the medical transport units were transformed into emergency medical teams, and this process was completed on 16 January 2001 [16]. In November 2016, the Independent Public Health Care Facility LPR changed its name to the Polish Medical Air Rescue and now has 21 permanent and one temporary base(s).

# NATIONAL EMERGENCY MEDICAL SERVICE IN 2020

The current organisation of the State Medical Rescue System is based on a law that was created in 2006 and entered into force on 1 January 2007 [17]. The Act sets out the principles of organisation, operation, and financing of the system and the principles of providing education in the field of first aid. The final and effective version was announced in the Notice of the Marshal of the Sejm of the Republic of Poland of 25 April 2019 on the announcement of the consolidated text of the Act on the State Medical Emergency Service [18]. The aim of this act is to introduce the functioning of the medical rescue system, both through high level provision of health services based on the current standards of Western countries and through providing required solutions in the area of notification of emergencies [19]. The law is the foundation for a number of regulations that specify its provisions in detail. The State Medical Rescue Service has been marked in a consistent manner and closely associated with this formation, adopting the graphic design of the State Medical Rescue system. The ordinance issued for this purpose specifies the way of marking the units of the system, the person in charge of the medical action, persons performing medical rescue operations, and rescuers from the units cooperating with the system, referred to in art. 15 section 1 item 9 of the Act of 8 September 2006 on the State Medical Rescue, as well as the requirements concerning uniforms of the members of medical rescue teams [20].

Modern medical rescue also includes dedicated medical staff, who have become its integral part. Apart from the previous professions of physician and nurse, the Act has given a fixation to a relatively young profession, i.e. the paramedic. Currently, according to its provisions, it is a person who, completing the process of pre-diploma education, must have a higher education, undergo a six-month

adaptation internship, and pass the State Medical Rescue Examination. This is one of the few professional groups for which a separate and standardised standard of education has been created, as is the case with physicians [21]. This professional group has also experienced independence and a certain autonomy in the performance of professional activities. Under the Regulation, in addition to performing medical rescue activities independently (basic medical rescue team) or under the supervision of a physician (specialist medical rescue team, emergency department), a paramedic has the right to perform his/her professional work in the so-called units cooperating with the system, i.e. the State and the Voluntary Fire Brigade, Army, Police, and mountain, sea, or water rescue. These activities have been called health services other than medical rescue operations, which can be provided by a paramedic, and an individual document has been created in the form of an individual paramedic's card, which is used to keep medical records while providing these services [22]. Since 1 January 2020, medical rescuers have been brought under the supervision of voivodeships, where they carry out and document the course of post-graduate training, which in their professional development is a period of five years, during which they must obtain 200 educational points in various forms of education [23]. Qualified First Aid is also a statutory solution, which has unified the standard of education for people on duty, employed, or being members of units cooperating with the system and not having the education of a physician, paramedic, or nurse. Under the relevant regulations, a 66-hour course in this field, after passing theoretical and practical exams, ends with the title of rescuer, which is used by the above persons for three years [24,25]. The rescue system also includes emergency notification and medical dispatchers. The current solutions have made it possible to create Emergency Notification Centres where operators of emergency numbers work, and medical dispatchers are based on standardised rules for receiving notifications and responding in a manner consistent for the whole country. The performance of the tasks of a medical dispatcher constitutes the provision of health services within the meaning of Article 2 section 1 point 10 of the Act of 15 April 2011 on Medical Activity [26,27,28]. A great breakthrough in the history of medical rescue in Poland is its computerisation, which took place in order to unify management in a uniform way for the whole country. The creation, development, and implementation of the System of Command Support of the State Medical Rescue is aimed at accepting emergency notifications transmitted from the emergency call centres referred to in Article 3 section 2 of the Act of 22 November 2013 on the Emergency Call System (Journal of Laws of 2019, item 1077) and notifications of incidents addressed to the medical dispatch centre referred to in Article 3 section 14a of the Act of 8 September 2006 on the State Medical Rescue.

# **CONCLUSIONS**

The medical rescue service has undergone a number of key changes and reforms since the beginning of the first such formation in Poland. The organisation of ground and air medical teams has significantly increased the possibility of survival through the speed of reaching the injured person and effective rescue operations. Creation of professional medical staff, including paramedics and medical dispatchers, is important for the proper functioning of the system in practice. Creation of Emergency Notification Centres and standardisation of accepting emergency calls significantly shortens the time from the moment of the event to the moment of medical intervention. The system aims at optimising and maintaining the standards of the golden hour rules. The functioning of the system should be continuously analysed in order to optimise it, avoid mistakes, and work out the most effective form of assistance. On the basis of the data and information collected, checks should be carried out and their mechanisms introduced in order to improve the quality of services provided by the State Medical Rescue Service and units cooperating with it.

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