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Competencies of ambulance crews

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Abstract
This article aims to elucidate the competencies of paramedics in Poland, the Czech Republic and Slovakia, thereby identifying the strengths and weaknesses inherent to the functioning of the systems that provide emergency medical care. The objective of this study is to compare the possibilities and competencies of paramedics at the scene of an intervention, both in terms of the procedures they can perform and the drugs they can administer independently or on the doctor's indication.

Slovak Republic
The competences of paramedics in Slovakia are based on Decree 151/2018 on the scope of practice in certain health professions, as amended. In this legal regulation, the performance and medication competences of paramedics are elaborated.

Czech Republic
The competences of paramedics in the Czech Republic are based on Decree 55/2011 on the activities of health professionals and other professionals. This decree elaborates the competences of paramedics but does not include medication competences.

Republic of Poland
The competences of Polish paramedics are based on the regulation of the Ministry of Health 33/2007 on the detailed scope of medical rescue activities that may be performed by a paramedic. In this regulation there are competencies that paramedics can perform without a doctor's indication and competencies that paramedics can perform only under a doctor's supervision.

Comparison of competencies of paramedics

Competences	SR (3.gr)	SR (4.gr)	CR (basic)	CR (consultation)	PL (basic)	PL (consultation)
take a medical history, observes, assesses and records vital signs, make an occupational diagnosis, performs DC cleaning and ensures DC patency, performs cardiopulmonary resuscitation, uses the car. and semi-auto. external defibrillator, provides peripheral venous input including I.O. input	X	X	X	X	X	X
provision of DC during artificial lung ventilation, administers oxygen therapy and inhalation therapy, recording the ECG waveform and assessing and evaluating it	X	X	X	X	X	X
basic neurological examination and establishes a working diagnosis of stroke, treats pneumothorax, diverts preterm labour	X	X	X	X	X	X
inserts gastric probes	X	X	-	-	-	-
introduces urinary catheter in women	X	X	-	-	-	-
takes biological material if necessary	X	X	-	X	-	-
takes capillary blood and venous blood for diagnostics	X	X	-	X	X	X
positioning and immobilising the person, extricating, treats wounds and bleeding, immobilises injured parts of the person's body, warms or cools a person, treats an amputee suitable for replantation	X	X	X	X	X	X
uses a magnet when ICD function is inadequate	X	X	-	-	-	-
provides transport of the person, continuously monitors health status, treats all external inputs, maintains communication with the CAB and others and other ICU and EMS units, ensures the safety of the intervention	X	X	X	X	X	X
cooperates in the navigation of the helicopter ambulance of the service in the field	X	X	X	X	-	-
provides care for the body of a dead person	X	X	X	X	-	-
In emergencies, he becomes the commander of the intervention, removal and dispersal	X	X	X	X	X	X
rescues persons with the emergency services if he/she does not endanger himself/herself by doing so	X	X	X	X	X	X
receive, control and store medicinal preparations			X	X	X	X
administer medicinal preparations	X	X		X	X	X
competences within the EMS	X	X	X	X	X	X
competences within emergency admissions	X	X	-	-	X	X
competences within the ICU, emergency admissions, anaesthetic resuscitation department	-	-	X	X	-	-
provide post-resuscitation activities, including analgosedation, Perform external cardiac pacing, perform endotracheal intubation, Perform tracheal cannula extubation	-	-	-	-	-	X

Medication competencies of paramedics

Medicines competence	SR (3.gr)	SR (4.gr)	CR (basic)	CR (consultation)	PL (basic)	PL (consultation)
crystalloid solutions and colloidal solutions	X	X	X	X	X	X
concentrated glucose solution - I.V., adrenaline - I.V., I.O., I.M	X	X	X	X	X	X
antipyretics - per rectum, P.O., I.V.	X	X	X	X		
anticonvulsants - per rectum, I.M.	X	X		X	X	X
anxiolytics - P.O., corticosteroids - per rectum, I.M., antihypertensives - P.O., neopiate analgesics - I.V., I.M., I.O., inh.	X	X	-	X	-	-
adsorption charcoal – P.O.	X	X	-	-	-	-
nitrates - P.O., S.L.	X	X		X	X	X
antiplatelet agents - P.O.	X	X	-	X	-	-
beta-2-mimetics - inh. (ventolin)	X	X	X	X	-	-
antiemetics - I.M. (degan)	X	X	-	X	X	X
antihistamines I.M.	X	X	-	X	X	X
anticonvulsants - I.V., I.O.	X	X	-	X	X	X
diuretics - I.V., I.O. for pulmonary oedema	X	X	-	X	-	-
corticosteroids - I.V., I.O.	X	X	-	X	X	X
antiemetics - I.V., I.O.	X	X	-	X	X	X
antihistamines - I.V., I.O.	X	X	-	X	X	X
bronchodilators and antiasthmatics inhaled	X	X	-	X	X	X
spasmolytics - I.V., I.O., heparins - I.V.	X	X	-	X	X	X
magnesium sulphuricum - I.V. - for eclampsia	X	X	-	X	-	-
diuretics - I.V., antidotes - I.V., I.O., intranasal, Atropine - I.V.	-	X	-	X	X	X
bronchodilators - I.V., opiate analgesics - I.V., I.O., I.M. (tramal)	-	X	-	X	-	-
magnesium sulphuricum - I.V., I.M.	-	X	-	X	X	X
cordaron	X	X	-	X	X	X
prednisone	-	-	-	-	-	X
ketonal, midazolam, morphine	-	-	-	X	X	X

Conclusion
The findings revealed that paramedics in Slovakia possess the ability to administer medications without a physician's prescription. However, this practice is accompanied by shortcomings, including inadequate equipment for certain medications and a lack of certain competencies that are present in paramedics in Poland and the Czech Republic.

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