







### A European Standard for Paramedic Practice – A Pipe Dream or an Achievable Reality?








Prof. Christoph Redelsteiner, PhD.

### Overview

- The need for paramedics
- Personell Situation
- Educational Situation
- Education in the „future“
- Practice in the future
- Goals




www.rallye-reviz.com




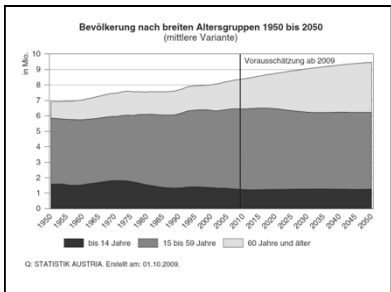
### Comparison

- Berlin, Hamburg, Munich
- Zurich
- Praha
- Budapest
- Bratislava
- Lubljana
- Belgrad
- Pristina
- Vienna
- Venice
- ...



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**Societal triggers**

e.g. small family structures

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### „Professions“ in European Emergency Medical Services

- Driver
- Attendant
- Ambulance Attendant
- Emergency Medical Technicians
- Rescue Assistants
- Paramedics
- Registered Paramedics
- Rescue Officers
- Registered Nurses
- Physicians
- Ambulance Physicians
- Emergency Physicians

n > 10

Cave: no common terminology

No common definitions, no common skill levels



### Austrian EMT Law 2002

	Class hours	Hospital hours	EMS hours	Hours of EMT level	Total hours
AA-B	100	-	160	260	260
AA-B career	40	-	-	300	300
EMT-A	160	40	280	480	900-940
EMT-IV	50	40	-	90	990-1030
EMT-ET	30	80	-	110	1600-1640

Land	Berufungsgruppe							Versorgungsniveau		
	Fahrer	KS EMT	RA NFB	NFSK PMDC	RN	NA	FA NF	BLS	BLS AED	ALS
<b>Belgien</b>										
RTW	1									1
NEF										1
<b>Dänemark</b>										
RTW	1	1								1
NEF										1
<b>Deutschland</b>										
RTW	1-1									1
RTW	1	1								1
NEF										1
<b>England</b>										
RTW	1-1									1
<b>Sachsenland</b>										
RTW	1	1-2		4-1						1
NEF	1	1-2		4-1	1					1
<b>Kroatien</b>										
RTW	1	1-2		4-1						1
NEF	1	1-2		4-1						1
<b>Österreich</b>										
RTW	1-1									1
RTW	1-1									1
NEF	1	1								1

Land	Berufungsgruppe							Versorgungsniveau		
	Fahrer	KS EMT	RA NFB	NFSK PMDC	RN	NA	FA NF	BLS	BLS AED	ALS
<b>Polen</b>										
RTW	1	1-2		4-1						1
NAW	1	1-2		4-1	1					1
<b>Türkei</b>										
RTW	1									1
NAW	1				1					1
<b>Schweiz</b>										
RTW		1	1							1
<b>Slowakei</b>										
RTW	1	1-2		4-1						1
NAW	1	1-2		4-1	1					1
<b>Slowenien</b>										
RTW	1									1
NAW	1				1	1				1
<b>Spanien</b>										
RTW	1									1
NAW	1				1	1				1
<b>Ungarn</b>										
RTW	1				1					1
NAW	1				1	1				1

### Condensed

- Ambulance Attendant
- Paramedic
- Nurse
- Medical Doctor
- MD with Emergency Specialization
- = highest training level that serves as a regular tier of EMS response

### National Condensation

Kosovo, Bosnia, Serbia  
 PL, CZ, SK, UA, HR, E, B, P, I, ...  
 NL, S, FIN, N  
 A, D, F  
 UK  
 Rescue Officer Emergency Physician H

### Trends

- Lack of MD, RN ⇒ Paramedicsystems
- Professional Migration East ⇒ West
- Increased Professionalisation leads to Reduction of Team Partner Training Degree  
RN, Registered Paramedics ⇒ Driver

### „Commonalities“ of the professions


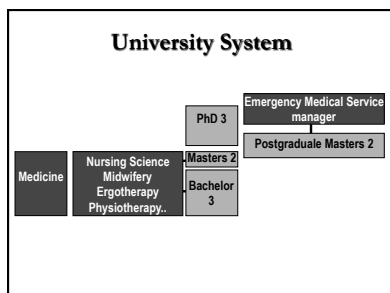
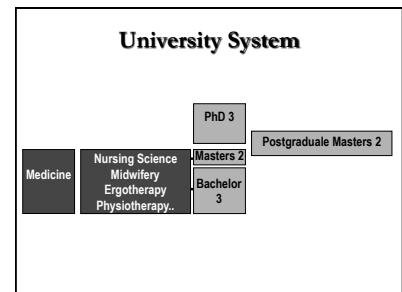
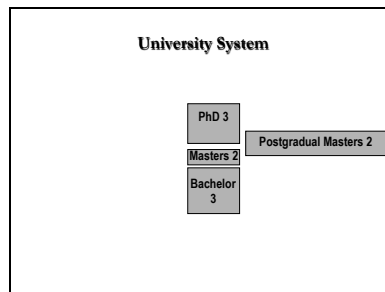
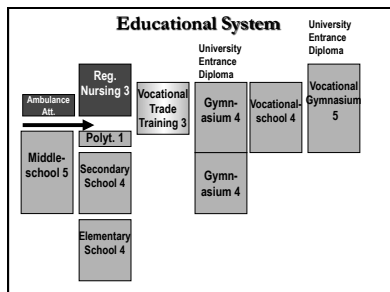
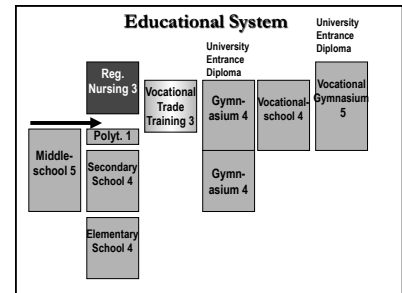
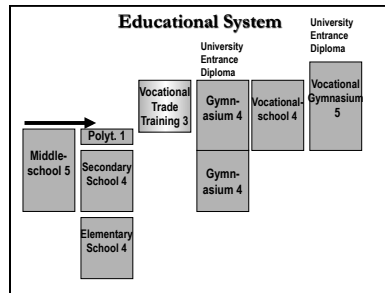

- High variation of quality
- ...also within singular service
- Nomenclatur / Terminology unprotected and unstandardized
- standards of treatment similar (on paper)

### „Commonalities“ of the professions

- ALS interventions not performed by the officially responsible persons
- legal scope of practice unfounded for „paramedical“ professions de facto ALS, de jure BLS ~
- Titel of profession, Type of training do not correlate with  
- scope of practice  
- amount of training

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### Master of Science in Emergency Health Services Management

Rettungsdienstmanagement  
 Emergency Health Services Management

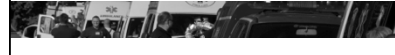
- 1. Universitätslehrgang
- 2. Interdisziplinäre Studiengänge: Rettungsdienstmanagement, Notfallmanagement
- 3. Universitätslehrgang
- 4. Bachelor (Erste- und Zweiteinstufige Studiengänge)
- 5. Doktorarbeit

Gesundheitsmanagement  
 Health Services Management – (Ersteinstufige Studiengänge)

Dr. rer. oec. Barbara Gellert  
 barbara.gellert@uni-wuerzburg.de

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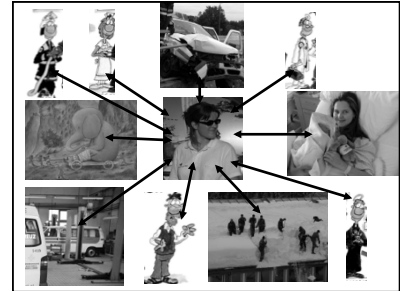
## Make the field and profession attractive!



## Checklist Training Standard for the future



- Broader and not only task oriented acquisition of knowledge  
-> think and act in standards and variations
- Education and not only Employability
- Regular training model and not „Sidemodel“
- Permeability between health care professions



## Duration of Training in Years

Medical Doctor	6
Socialworker	5
Midwife	3
Nurse	3
Firefighter	1
Psychologist	5
Race Car driver	?
Manager	6
Mechanic	3

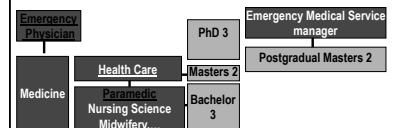
„Paramedic“ 32 years

## Duration of Training in Years / 4

Medical Doctor	6
Socialworker	5
Midwife	3
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Firefighter	1
Psychologist	5
Race Car driver	?
Manager	6
Mechanic	3

„Paramedic“ at least 7 years

## University System

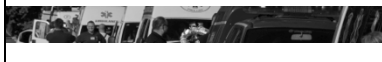


## EMS Education on Bachelor Level

- Hungary > Bachelor
- Slovakia
- Czech
- Poland (§ = ?)
- United Kingdom
- Netherlands?
- Germany?
- Switzerland?

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## EMS Hardware



- Road Ambulances European Standards
- CEN 1789 Vehicles + equipment
- CEN 1865 Stretchers + patient handling equipment

### Air Rescue Standards

- Jarops
- Austrian Standard ON S 4132
- Helicopters ON S 4130
- ◆ Definitions, Requirements, Equipment



**Berlin, 2008:**



**Standardized care concepts?**

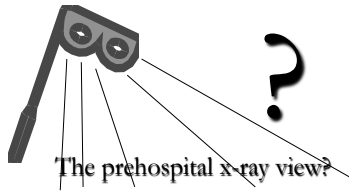
- ITLS/PHTLS - ATLS
- ILCOR ERC ACLS
- AMLS
- EPLS, PLS, ...
- MIRITVK

**MIRIPCC**

Multiple Institutionspecific Regional Individual Patient Care Concepts

- ◆ sometimes great regional concepts
- ◆ common training?
- ◆ Common procedures?
- ◆ Comparable - case # great enough ?
- ◆ Supervising institution ?

**The clinical view**



The prehospital x-ray view?

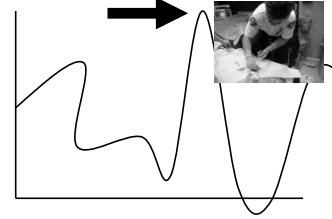
**Foundation of clinical judgement**

83 EMS Calls per MD p.a. in Germany  
9,7% cancelled / no patients

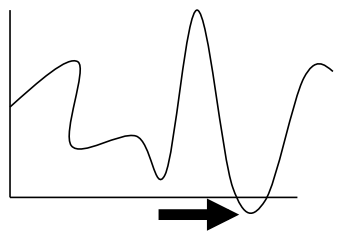
75 Calls  
28 % Trauma n = 21

**Cave: Hospital ≠ Prehospital**

**The best case**



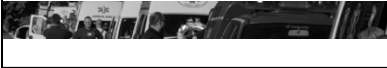
**The best and worst case?**

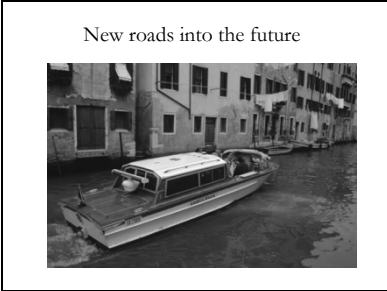


Mäßigkeit	ISL	ISL	ISL	ISL	ISL	ISL
1.0 - 1.5	+	+	+	+	+	+
1.6 - 2.0	+	+	+	+	+	+
2.1 - 2.5	+	+	+	+	+	+
2.6 - 3.0	+	+	+	+	+	+
3.1 - 3.5	+	+	+	+	+	+
3.6 - 4.0	+	+	+	+	+	+
4.1 - 4.5	+	+	+	+	+	+
4.6 - 5.0	+	+	+	+	+	+
5.1 - 5.5	+	+	+	+	+	+
5.6 - 6.0	+	+	+	+	+	+
6.1 - 6.5	+	+	+	+	+	+
6.6 - 7.0	+	+	+	+	+	+
7.1 - 7.5	+	+	+	+	+	+
7.6 - 8.0	+	+	+	+	+	+
8.1 - 8.5	+	+	+	+	+	+
8.6 - 9.0	+	+	+	+	+	+
9.1 - 9.5	+	+	+	+	+	+
9.6 - 10.0	+	+	+	+	+	+

Einheit	ISL	ISL	ISL	ISL	ISL	ISL
1.0 - 1.5	+	+	+	+	+	+
1.6 - 2.0	+	+	+	+	+	+
2.1 - 2.5	+	+	+	+	+	+
2.6 - 3.0	+	+	+	+	+	+
3.1 - 3.5	+	+	+	+	+	+
3.6 - 4.0	+	+	+	+	+	+
4.1 - 4.5	+	+	+	+	+	+
4.6 - 5.0	+	+	+	+	+	+
5.1 - 5.5	+	+	+	+	+	+
5.6 - 6.0	+	+	+	+	+	+
6.1 - 6.5	+	+	+	+	+	+
6.6 - 7.0	+	+	+	+	+	+
7.1 - 7.5	+	+	+	+	+	+
7.6 - 8.0	+	+	+	+	+	+
8.1 - 8.5	+	+	+	+	+	+
8.6 - 9.0	+	+	+	+	+	+
9.1 - 9.5	+	+	+	+	+	+
9.6 - 10.0	+	+	+	+	+	+

- ### Skills - ?
- Release on scene after certain indications (e.g. Headache, thoracic pain,...)
  - Death certificate
  - General anaesthesia with RSI
  - Chest tube
  - Surgical Tracheotomy
  - Central Venous Access

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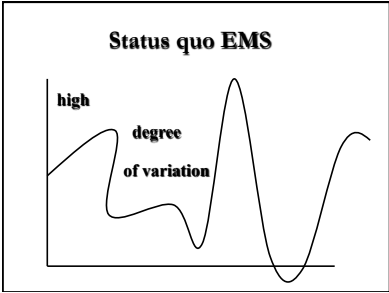
- ### Options for the Future
- Accept reduced level of care
  - Telemedicine
  - Higher integration of nursing and ambulance work
  - Higher involvement of ??? Paramedics, nurses, family doctors as -> Gatekeepers
  - .....

Institutionelle Systemkomponenten und wesentliche Prozesskomponenten	Vorhanden?	systematisch verwendet?
<b>Leitstelle</b>		
Eigenes Leitstellen-Mitteleinsatz		
Bei > 1 Nummer fachliche Abfrage und Informationstransfer über Leitstelle möglich		
Ausdrucksfunktion		
Erfassung der Ressourcen		
Aktueller Einsatzbereich		
Abfrage nach Notfallkategorien		
Zusammenfassung in einer Karte		
Zugänglichkeit für Kliniken und Betten		
<b>Präklinisches System</b>		
First Responder Systeme von Feuerwehr		
First Responder Systeme von Polizei		
First Responder Systeme von klaren Gesundheitsberufen		
Präklinisches Personal in Ausbildung über Support personal und erfahren (Anamnese, Diagnostik, EKG, Diagnostik, Medikamente, Intubation, ...)		
<b>Klinisches System</b>		
Zentrale integrierte Notaufnahme		
Höherer Grad an professioneller interdisziplinärer und professionenübergreifender klinischer Zusammenarbeit		

Tabelle 2: Musterhafte Tabelle zur Klassifizierung von Rettungsdienstsystemen

Heruntergeladen von: https://www.rettungsdienst.de/...  
 Publikationsjahr: 2010  
 Urheberrechtlich geschützt durch die Deutsche Gesellschaft für Notfallmedizin (DGEM) e.V.  
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- ### Needs and rights of patients
- Do callers get phone instructions to deliver first aid ?
  - Do high priority patients get the closest and the appropriate ambulance?
  - Is care provided according to ERC, AMLS...guidelines?
  - Do patients get treatment against pain?
  - Are patients admitted to hospitals with simple illnesses / injuries due to lack of skilled prehospital screening?
  - Are basic data such as response times measured and publicly available (Freedom of Information)?
  - .....



## Emergency Paramedicine 2020+

- symbol
- Common definitions
- Common indicator set/data for EMS Systems
- Harmonized provider training in EC
- Duty to register providers
- Applied minimum standards of care

