



Research in OHCA – Past Developments & Current Research in **[Turkey]**

Name: Ridvan Atilla

Designation/Department: A/Prof/Emergency Department

Country: Turkey



2010 Türkiye'de Japonya Yılı



TURKEY

At the crossroads between Europe and Asia.

Geographic size 769,604 sq km

Population 74 000 000 (65% in large cities)

Life expectancy at birth - years

- Total 71.5
- Male: 69.1
- Female: 74.0

POPULATION DENSITY

South Africa
40 people/km²



Turkey
93 people/km²



Hong Kong
6347 people/km²



Health Care in Turkey



Primary Care-Public Health Center

About 6000

Family Practitioners are getting more common.

Hospitals

Secondary Care

Tertiary Care

Physicians

140 000 physicians.

40% residency trained.

Medical Education in Turkey



Medical school: 6 years (after Lycée)

Graduation as General Practitioner.

Total 56 medical schools. 9 private universities.

Speciality: 4-5 years.

Mostly at university hospitals.

In large governmental hospitals.

Fellowship: 2-3 years.

Centrally organized, countrywide entrance exams

Prehospital Care in Turkey



82 Dispatch centers.

1100 Ground ambulances at 890 bases.

- Well controlled and directed by the Government.

- Dispatcher-based EMS system

Ambulance: 112

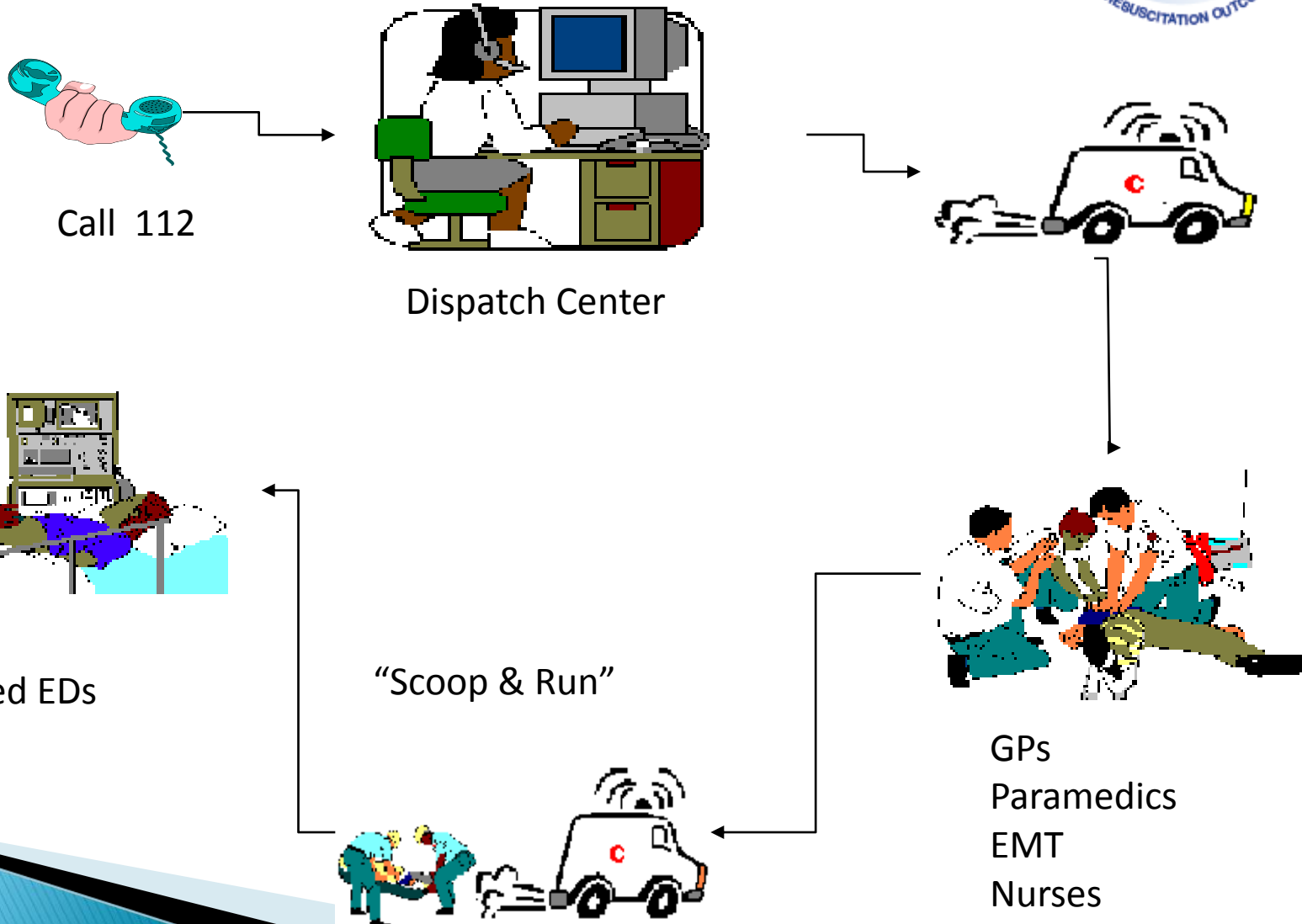
Police: 155

Fire: 110

- Ambulances staffed by GPs, more recently by paramedics.

- Countrywide air medical transport for two years by the Ministry of Health

How it works?





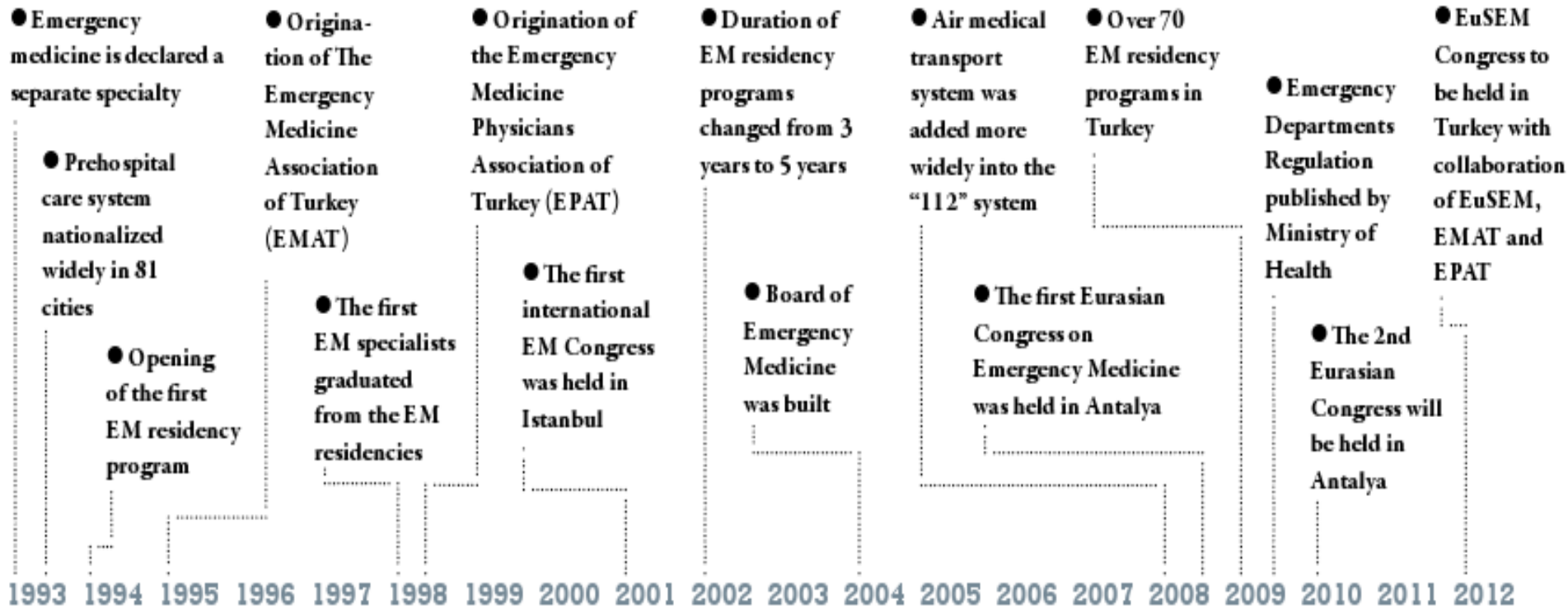
Hospital care in Turkey

Overall 1400 EDs

- General Practitioners serve in over 90% of ED's
- 350 Emergency Physicians since 1995
- Governmental hospital EDs : 200-600 pts/day
- Governmental teaching hospital Eds: 500-1500 pts/day
- University hospital EDs: 100-300 pts/day

Admission rates much higher in teaching and university hospitals.

A Brief Timeline of Emergency Medicine in Turkey



In Hospital Death stats



In hospital deaths stats (Turkey, overall)

	2000	2001	2002	2003	2004
	Deaths	Deaths	Deaths	Deaths	Deaths
All diseases	83.121	81.733	90.000	93.017	95.656
Cerebrovascular disease	11.171	11.628	13.135	12.958	14.012
Other forms of heart diseases	10.966	11.249	13.296	12.736	13.133
Ischaemic heart disease	5.109	5.261	6.078	7.307	7.392
Other diseases of respiratory system	2.843	3.151	3.742	3.718	4.250
Malignant neoplasm of trachea, bronchus and lung	2.029	2.314	2.699	3.066	3.353
Symptoms and other ill-defined conditions	5.269	2.682	2.718	3.414	3.179
Bronchitis, emphysema and asthma	1.815	2.157	2.067	2.514	2.881
Malignant neoplasm of other and unspecified sites	1.690	1.897	2.285	2.519	2.649
Other diseases of digestive system	1.600	1.777	1.971	1.933	2.346
Motor vehicle accidents	2.547	2.256	2.141	2.169	2.154
Other causes of perinatal morbidity and mortality	1.995	1.739	1.997	1.945	1.981
Other diseases of circulatory system	1.049	960	1.407	1.589	1.970
Other diseases of nervous system and sense organs	1.988	2.203	1.762	2.461	1.955
Diabetes mellitus	1.390	1.537	1.564	1.866	1.765
Other pneumonia	1.667	1.688	2.341	1.582	1.690
Diseases of arteries, arterioles and capillaries	998	869	1.206	1.279	1.583
Hypertensive disease	1.469	1.387	1.674	1.688	1.499

OHCA studies in Turkey



Pub Med search has revealed only 1 article

NCBI Resources How To

PubMed.gov
U.S. National Library of Medicine
National Institutes of Health

Search: PubMed
out of hospital cardiac arrest turkey
Search Clear

RSS Save search Limits Advanced search Help

Display Settings: Summary, 20 per page, Sorted by Recently Added Send to:

Filter your results:
All (10)
Review (0)
Free Full Text (0)

We found **1 article** by title matching your search:

[Evaluation of the outcome of out-of-hospital cardiac arrest resuscitation efforts in Denizli, Turkey.](#) Erdur B et al. *J Emerg Med.* (2008)

J Emerg Med. 2008 Oct;35(3):321-7. Epub 2008 Feb 14.

Evaluation of the outcome of out-of-hospital cardiac arrest resuscitation efforts in Denizli, Turkey.

Erdur B, Ergin A, Turkcuer I, Ergin N, Parlak I, Serinken M, Bozkir M.

Department of Emergency Medicine, Pamukkale University, Denizli, Turkey.

Evaluation of the OHCA resuscitation efforts in Denizli, Turkey



- ▶ The objective was to evaluate the outcomes and associated factors for short-term success and long-term survival rates of resuscitated non-traumatic OHCA in Denizli, Turkey.



Denizli

Population 591.000

Density 83/km²

Izmir

Population 2.727.000

Density 226/km²



Method

- ▶ ED of the Pamukkale University and City Hospitals
- ▶ 3 months (between Jan 2004 and Mar 2005)
- ▶ successful outcome was defined as
 - return of spontaneous circulation or breathing
 - evidence of a palpable pulse
 - measurable blood pressure.
- ▶ long-term survival up to 9 months was obtained by telephone.



Results

- ▶ 222 OHCA adults were resuscitated
 - 85 (38.3%) successful outcomes ;
 - 25 (11.2%) were discharged alive;
 - 21 (9.4%) were alive at 9th month
- ▶ Mean arrest time 11.7 min
- ▶ Type of transportation
 - ambulance, 32.1% vs. private vehicle, 44.5%; $p = 0.057$)
- ▶ Place of arrest
 - home, 32.6% vs. other, 44.0%; $p = 0.08$
- ▶ First rhythm at the scene
 - asystole, 33.4% vs. ventricular fibrillation



Current research

- ▶ A Retrospective study
- ▶ OHCA presented to ED of Dokuz Eylul UH
Izmir, Turkey
- ▶ Between Jan 2007 – June 2010
- ▶ Preliminary results
 - 1500 OHCA
 - 20 – 30% ROSC rate
 - 3–5% survival rate