

# STATE OF EMERGENCY HEALTH SERVICES IN TURKISH REPUBLIC OF NORTHERN CYPRUS

KUZEY KIBRIS TÜRK CUMHURİYETİ'NDE ACİL SAĞLIK HİZMETLERİNİN DURUMU

Mehmet Ergin<sup>1</sup> Dilek Sarpkaya<sup>2</sup> Gürkan Özel<sup>3</sup> Dağhan Aylanç<sup>4</sup> Ümran Dal<sup>2</sup>

<sup>1</sup>Yakın Doğu Üniversitesi Tıp Fakültesi, Acil Tıp Ad, Lefkoşa, Kktc

<sup>2</sup>Yakın Doğu Üniversitesi Sağlık Bilimleri Fakültesi Hemşirelik Bölümü, Lefkoşa, Kktc

<sup>3</sup>Başkent Üniversitesi Sağlık Hizmetleri Meslek Yüksek Okulu, Paramedik Programı, Ankara, Türkiye

<sup>4</sup>Yakın Doğu Üniversitesi Sağlık Bilimleri Enstitüsü, Acil Tıp Hemşireliği Yüksek Lisans Programı, Lefkoşa, Kktc

## Yazışma Adresi:

Mehmet Ergin  
Sille Parsana Mah Barış Cadale Park  
Evlerino: 111/4 Selçuklu Konya - Türkiye

E posta: drmehmetergin@gmail.com

Kabul Tarihi: 14 Ağustos 2015

## ÖZET

Kuzey Kıbrıs Türk Cumhuriyeti'nde (KKTC) sağlık bakımı sektörü yıllar içerisinde hem ülkede yetişen hem de Türkiye'den gelen hekimlerin yardımı ile büyük bir gelişme göstermektedir. Bugün, KKTC Sağlık Bakanlığı hem kendi vatandaşlarına hem de ziyaretçilerine yönelik sağlık bakımı hizmetlerini sağlamak üzere bir çok projeyi yürütmektedir. Bu yazı bilimsel bir odak ile KKTC çapındaki acil sağlık bakımı hizmetlerinin durumunu özetlemektedir.

**Anahtar Kelimeler:** Kuzey Kıbrıs, acil bakım, sağlık hizmetleri

## SUMMARY

The health care sector in the Turkish Republic of North Cyprus (TRNC) has improved greatly over the years with the help of both doctors trained in the country and those coming from Turkey. Today, the Ministry of Health of the TRNC runs numerous projects to deliver healthcare services to its citizens and visitors. This paper will outline the status of emergency health services across the TRNC, with a scientific focus.

**Keywords:** North Cyprus, emergency care, health services

DOI: 10.5505/bsbd.2016.95866

Balıkesir Sağlık Bilimleri Dergisi

ISSN: 2146-9601

e-ISSN: 2147-2238

[bsbd@balikesir.edu.tr](mailto:bsbd@balikesir.edu.tr)

[www.bau-sbdergisi.com](http://www.bau-sbdergisi.com)

## INTRODUCTION

Cyprus, the third largest island in the Mediterranean Sea, is only 65 km away from the Turkish mainland; the young republic established in the northern part of the island is referred to as the "Baby Land" in Turkey. Cyprus was invaded by the Ottomans in 1571 and has since been considered a Turkish land. Over the years, the land has been supported politically and economically by Turkey and has been heavily influenced by Turkish culture. In the recent past, following political struggles, the independence of the Turkish Republic of Northern Cyprus (TRNC) was declared in 1983 due to the outstanding efforts of Turkish Cypriots and the Republic of Turkey. This young republic has been showing great progress as a nation since its establishment. The healthcare sector in

the TRNC has also improved greatly over the years with the help of both doctors trained in the country and those coming from Turkey. Today, the Ministry of Health (MoH) of the TRNC runs numerous projects to deliver healthcare services to its citizens and visitors. Emergency medicine services (EMS) are among those delivered by highly dedicated providers.

This paper will outline the status of emergency health services across the TRNC, with a scientific focus.

## General Overview of EMS in the TRNC and Its Components

MoH of the TRNC defined EMS as communication, ambulance services, on-scene treatment, emergency department (ED) and treatment. The EDs are regulated by the Inpatient Treatment Institutions Division of the

MoH and run by four state hospitals: Dr. Burhan Nalbantoğlu (Nicosia-Lefkoşa), Gazimağusa (Ammochostos), Dr. Akçiçek (Kyrenia-Girne) and Cengiz Topel (Morphou-Güzelyurt). On the other hand, the primary health services are delivered by 21 local health clinics run by the MoH<sup>1</sup>.

There are two medical schools in the TRNC, Near East University (NEU) and Eastern Mediterranean University (EMU). Only NEU has a hospital facility, where it runs ambulance services and an ED. Apart from the university programs, some clinical residency programs are provided by the Dr. Burhan Nalbantoğlu (DBN) State Hospital. The NEU and DBN State Hospitals are the two institutions that provide tertiary-level care. The TRNC also has numerous private hospitals and outpatient clinics. Most of these facilities offer emergency care on a small-scale emergency unit level<sup>1</sup>.

The TRNC MoH operates pre-hospital EMS (112) with 26 ambulances and a full-time staff of 90 nurses, two paramedics, five emergency medical technicians (EMTs) and 59 ambulance drivers. The ambulance station based at DBN also houses the dispatch center<sup>1</sup>. Furthermore, NEU operates its own fleet of ambulances and supports the EMS system. Other hospitals also utilize their own ambulances to serve their clients and population by using separate call numbers.

Based on MoH data, 50% of the hospital applications between 2006 and 2011 were on out patient units, 30% on emergency health care and 20% on primary health care. The total number of annual ED visits was 180,631 in 2006, and increased slightly to reach 197,923 in 2011. DBN was the most frequently visited state hospital during that period<sup>2,3</sup>.

Based on data for December 2012, approximately 55% of ED visits to DBN occurred between 15:00 and 24:00 hours. During this period, there are two staff physicians in the ED seeing six to 25 patients every hour. The total time per patient for interview and examination during this one-hour time period ranged between 4.8 and 20 minutes. A report prepared by the Court of Auditors pointed out that physicians with limited ED experience were staffing the EDs during busy hours weekdays and on the weekends, and that the staffing policy of the MoH does not include risk assessment<sup>2</sup>.

### EMS Related Legislation

The legislative framework of the EMS in the TRNC is incomplete. No regulations are in place concerning the ambulance services, its operations and pre-hospital treatment protocols. While the roles and responsibilities of the chief emergency physician, the attending emergency physician and the EMTs are present; no such definition exists for paramedics. A report prepared after

the TRNC Health Workshop recommended that a legislative framework should be completed promptly<sup>2,4</sup>. The TRNC MoH published 'the Emergency Department Ordinance' in July 8, 1991; however, the document has not been revised since then. DBN's hospital management also prepared ED operations and consultation protocols, and definitions of the roles and responsibilities of emergency physicians. However, other critical documents, such as patient admittance criteria, patient referral protocols, ED triage protocols, patient transport, informed consent and poisoning diagnosis and treatment protocols have not been prepared<sup>2,4</sup>.

### Planning for EMS

Medium- and long-term planning for the EMS in the TRNC is non-existent. The MoH practically focuses on finding solutions for day-to-day problems in the delivery of services. A standardized data collection system that would help identify problems and measure the EMS performance is lacking. The Health Services Advisory Board, whose function is to monitor, evaluate and recommend changes, has been found to be non-functional, and the Hospital Council, whose responsibility is to complete these duties across individual hospitals, has not yet been established<sup>2</sup>. Following publication of the report, the TRNC Health Workshop was conducted by the MoH with broad participation from representatives of the sector between November 28 and 30, 2013. The workshop report, which includes all identified problems and corresponding recommendations, was published in December 2013<sup>4</sup>.

Healthcare Fees Tariff Regulations were published to establish fees for the EMS; however, the Court of Auditors reported that these fees are collected under different conditions and different management in the MoH, or sometimes not collected at all<sup>2</sup>.

### ED Medical Staff Structure and Operations

Emergency care at the DBN State Hospital ED is delivered with the support of attending and resident physicians from surgical and internal medicine units since there is only one emergency physician on the hospital staff<sup>2</sup>. The "TRNC Healthcare System Evaluation Report" prepared by the Turkish MoH Evaluation Board in January 2010 stated that there is a critical need for physicians in specific specialties such as emergency medicine. The Republic of Turkey and the TRNC signed an agreement in 2008 as part of an alliance in the healthcare sector, and quotas have been reserved for physicians from the TRNC to be trained in residency programs in Turkey. However, not a single emergency physician who is a citizen of the TRNC has been trained since then<sup>5</sup>.

Staffing needs for both pre-hospital care as well as the EDs were emphasized during the Healthcare Workshop, with a special request made for improving employee rights for these specialties and providing specialized training<sup>4</sup>.

A study conducted on ED utilization revealed that ED staff perceived that as much as 25% of ED visits were not true emergencies. For patients seeking care at the EDs, the primary reason was the long wait times at outpatient services. Additional reasons reported were: the ability to receive the services during out-of-business hours, free services, relatively short wait times and rapid diagnostic examination results. Based on these findings, extending outpatient service hours and making it easier to access the services, thereby reducing the ED workload, was recommended in the workshop report<sup>2,4</sup>.

EDs are places where nursing care is practiced with rapid critical care skills and nursing processes. A patient admitted to the ED may have additional health problems apart from their visible complaints. Because of this, emergency nurses need to have highly specialized knowledge and skills. Furthermore, high quality nursing services can only be provided with an adequate number of nurses and proper working conditions.

Interview results with five hospital EDs in the TRNC revealed that a total of 74 nurses were working in the EDs (18 in the DBN State Hospital, 21 in Gazimağusa State Hospital, 16 in Dr. Akçiçek Hospital, 10 in Cengiz Topel State Hospital and 9 in NEU Hospital). The nurses' average weekly work hours were above 55 hours in two of these hospitals, between 46 and 50 hours in one hospital and between 40 and 45 hours in two others. When the educational backgrounds of the ED nurses were evaluated, 8.10% had graduate level training, while 56.75% had undergraduate diplomas and 35.15% had associate degrees. The graduate degree holders had their graduate diplomas in specialties other than nursing. During the same interview, 63.50% of the nurses were found to have basic training in emergency nursing, consisting of basic and advanced life support procedures; however, no continuity and renewal processes existed for these education programs (unpublished report). Based on these findings from various sources, it was recommended that the emergency medicine-related knowledge and skills base for ED staff be improved to fill the existing gap<sup>2,4</sup>. Following the publishing of the report, the NEU School of Medicine hosted the Patient Management in Emergency Medicine Symposium with broad participation between February 28 and March 1, 2014. Shortly after the symposium, the entire pre-hospital care staff in the TRNC received "Basic Prehospital Emergency Response" training in May

2014<sup>1,6</sup>. Another development on these efforts was the acceptance of the first students to the Emergency Nursing Graduate Program under the NEU Institute of Health Sciences following approval by the Higher Education Auditing and Accreditation Board<sup>7</sup>.

### ED Architecture

There is an urgent need for remodeling of EDs, especially the DBN State Hospital ED. Remodeling of Dr. Akçiçek Hospital ED (Kyrenia) was completed in 2013. The Gazimağusa State Hospital was built in 2007 and its ED is designed with modern architecture compared to other hospitals<sup>1,2,4,8</sup>.

### CONCLUSION

EMS need to be widely available, easily accessible, well-organized and offer sustainable services to its citizens. Every component of these services must be complete and fully integrated in the healthcare system. The EMS in the TRNC is in its infancy and there is a long way to go before successful implementation. The solutions proposed during the Healthcare Workshop constitute a good starting point. It is desired that the steps taken using as scientific approach and supported by the nation's capabilities will ensure that EMS, both at prehospital and hospital levels, are successful in the near future.

### Acknowledgement

Special thanks to Dilek Sarpkaya who is one of the writers and also actualized interviews with chief nurses of all hospitals about state of nurses and nursing care in EDs.

### REFERENCES

1. Turkish Republic of North Cyprus Ministry of Health official website: Hospital/Healthcare Centers. Accessed from [www.saglikbakanligi.com](http://www.saglikbakanligi.com); Accessed date: Aug 1, 2014. (in Turkish)
2. Sağlık Bakanlığı Dr. Burhan Nalbantoğlu Devlet Hastanesi Acil Servis Hizmetlerinin Yönetimi Sayıştay Başkanlığı Denetim Raporu. Accessed from <http://www.sayistay.gov.ct.tr/Portals/1089/documents/reports/VETRapor022013.pdf>; Access date: Aug 1, 2014. (in Turkish)
3. Turkish Republic of North Cyprus Ministry of Health official website: Statistics. Accessed from [www.saglikbakanligi.com](http://www.saglikbakanligi.com); Accessed date: Aug 1, 2014. (in Turkish)
4. Kuzey Kıbrıs Türk Cumhuriyeti Sağlık Çalıştayı Çalıştay Raporu. Aralık 2013, Lefkoşa.
5. Resmi Gazete (2008, Ekim 12). Accessed from: <http://www.resmigazete.gov.tr/eskiler/2008/10/20081012-1.htm>; Accessed date: Aug 1, 2014. (in Turkish)
6. Ergin M, Aylanç D, Aslay S, Emircan S, Bulakbaşı N, Cander B. Patient management symposium in emergency medicine at North Cyprus Emergency Medicine Days. JAEM 2014,13:219-20.
7. Near East University Graduate School of Science Emergency Medicine Nursing Master Program. Accessed from [http://www.neu.edu.tr/docs/graduate\\_school\\_health/sbe-acil-tip-hemsireligi-yl-programi.pdf](http://www.neu.edu.tr/docs/graduate_school_health/sbe-acil-tip-hemsireligi-yl-programi.pdf); Accessed date: Sept 25, 2014.
8. Turkish Republic of North Cyprus Ministry of Health official website: Activities in 2013. Accessed from [www.saglikbakanligi.com](http://www.saglikbakanligi.com); Accessed date: Aug 1, 2014. (in Turkish)