Analysis of the use of emergency medical services by Syrians under temporary protection in Ankara, Turkey

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ABSTRACT

Aims: This study aims to determine how Syrians who must live in a country other than their homeland use emergency medical systems (EMS) in that unfamiliar health system.

Methods: We retrospectively evaluated the data of Syrians who called on EMS between January 2017 and December 2020. Patient data were routinely recorded by ambulance personnel after each patient's intervention in the Emergency Health Automation System Database, created by the Ministry of Health of Turkey. International Classification of Diseases Version 10 codes were used to identify diseases.

Results: Of the total of 1,790,356 emergency patients, 24,266 (1.2%) were Syrian refugees. The most common ambulance requests frm the Syrians were due to birth and birth-related events (19.3%). The most common reason for ambulance assignment among females was birth (33.4%), and car accidents (10.0%) among males. Among patients <18 years of age, the most common reason for ambulance assignment was falls (15.0%). Among patients between 18 and 44 years of age, the most common reason was birth (32.1%). The most common reason for ambulance assignment between 45 and 65 years of age was chest pain (12.6%). Among patients aged 65 years or older, chest pain was the most common reason for ambulance assignment (11.6%).

Conclusions: Improving the training of ambulance teams in districts with large Syrian populations, especially for common medical issues such as birth and trauma, will increase the quality of care for these patients.

Introduction

Since the Syrian civil war began in 2011, 6.6 million Syrians have had to leave their country (1) and more than 5 million Syrians have immigrated to different countries in search of safety (2). They have immigrated to Lebanon, Jordan, Iraq, and Egypt, but mostly to Turkey. As of 2019, 3.5 million (64.3%) displaced Syrians have immigrated to Turkey, a neighboring country of Syria (2).

Although it is far from the Turkish-Syrian border, Istanbul, the country's most populous city, has become home to many Syrians (429,000). Other cities in which Syrian refugees settled are Gaziantep (459,000), Hatay (439,000), and Şanlıurfa (427,000), which are located on the Syrian border. In Turkey's capital city of Ankara there are currently 99,000 Syrians, accounting for 1.77% of the city's total population (3).

Emergency medical services (EMS) are among the most important parts of healthcare systems and the first point of contact for many people. Every day in the world, people die or become disabled due to various acute illnesses and injuries. Therefore, all people should have easy access to EMS (4). Access to health services has been identified as a human right in the Constitution of the Republic of Turkey. Therefore, The Republic of Turkey offers free healthcare services to everyone living within its borders. The Ministry of Health (MoH) of Turkey has issued a circular for those under temporary protection, saying that they have free access to all health services (5). In

this context, like other health services, EMS are offered free of charge to Syrians.

Studies on Syrians have largely focused on costs and access to health care. Karakuş et al. (6) and Gulacti et al. (7) evaluated the cost of Syrian patients to the healthcare system. However, few studies have focused on the use of EMS by Syrians, such as Altıner and Yeşil (8). This study aimed to examine how Syrians living under temporary protection in Ankara, Turkey use EMS.

Methods

Procedures

We retrospectively evaluated the data of Syrians who called on EMS for emergency assistance between January 2017 and December 2020. Also, provide the territory/region/hospital (s) where the patients are referred to in the database evaluated for this study. Ethics approval of the study was obtained from the University of Health Sciences Turkey, Dr. Abdurrahman Yurtaslan Oncology Health Application and Research Center Non-Invasive Ethics Committee (ref. no.: 2020-92; date: October 06, 2021).

The patients were routinely recorded by ambulance personnel (doctors, paramedics and emergency medical technicians) in the Emergency Medicine Automation System (ASOS) Database, created by the MoH of Turkey. International Classification of Diseases Version 10 codes are used to identify diseases. The data recorded in the ASOS Database by the ambulance personnel are also checked for possible errors by the Ankara EMS Command and Control Center.

To identify each patient in the ASOS Database, it is necessary to enter a name and surname as well as an ID number. For Turkish citizens, this ID number is the Identity Number of The Republic of Turkey, which is unique to each citizen. Non-citizens of Turkey are given a separate ID number by the Directorate General of Migration Management. In order to filter Syrians from the database among all other non-citizen patients, unique ID numbers of Syrians were obtained from the Directorate General of Migration Management. The data of the patients with these ID numbers were then exported from the ASOS Database.

Endpoints

In the study, the records of ambulance assignments made because of an emergency call to the 1-1-2 Emergency Call Center between 2017 and 2020 was retrieved from the ASOS database. From these data, age, gender, and nationality of the patients, reasons for the emergency calls, case diagnoses, hospitals where the cases were transferred, and the districts of the case variables were included in the study. Data were categorized according to the nationality of the patients as Turkish citizens, Syrians, and others. It was evaluated whether there was a difference between Turkish citizens and Syrians in terms of age, gender, and nationality of the patients, the reasons for the emergency calls, case diagnoses, the hospitals where the cases were transferred, and the districts of the cases.

Statistical Analysis

Data were extracted from ASOS in Excel format (Microsoft Excel 2016-Microsoft Corp., Redmond, WA, USA). The extracted data were then exported to IBM Statistical Package for the Social Sciences 25.0 (IBM Corp., Armonk, NY, USA) and analyzed statistically. Descriptive statistical methods (frequency, percentage, mean, standard deviation) were used to evaluate the study data.

Results

In the 4 years between January 1, 2017, and December 31, 2020, Ankara EMS had a total of 1,790,356 emergency patients, of whom 24,266 were Syrians. The ratio of Syrian patients to the total was 1.2%. The number of cases of Turkish citizens was 1,368,860 (76.5%). The number of patients other than Turkish citizens and Syrians was 397,230 (Table 1). The mean age of Syrian patients was 28.5±18.2 years and 56.5% of them were women. The mean age of Turkish citizens was 50.5±24.8 years and 49.6% of them were women.

Reasons for ambulance calls

The most common ambulance calls of Syrians were due to labor and pregnancy emergencies (19.3%). Other reasons were falls (6.3%), abdominal pain (6.3%), traffic accidents (6.1%), and anxiety (4.9%), respectively. In 2020, 915 Syrian patients with a

Year	Population (Ankara)	Total number of cases	Turkish citizens		Syrians		Others	
			Number of cases	% in total cases	Number of cases	% in total cases	Number of cases	% in total cases
2017	5,445,026	417,153	320,819	76.9	6,045	1.4	90,289	21.7
2018	5,503,985	436,762	336,539	77.1	5,937	1.4	94,286	21.5
2019	5,639,076	458,369	345,129	75.3	6,160	1.3	107,080	23.4
2020	5,663,322	478,072	366,373	76.6	6,124	1.3	105,575	22.1
Total		**1,790,356**	**1,368,860**	**76.5**	**24,266**	**1.4**	**397,230**	**22.1**

*EMS: Emergency medical services

Table 1. Total number of cases of the Ankara EMS*

112

Bekgöz et al. EMS use by Syrians in Ankara

pre-diagnosis of Coronavirus disease-2019 were assigned an ambulance.

Turkish patients called for an ambulance most frequently because of chest pain (7.3%). Other reasons were falls (6.6%), traffic accidents (6.6%), anxiety (5.7%), and nausea-vomiting (4.3%), respectively. The most common reasons for ambulance assignment of patients by years are given in Table 2.

EMS diagnoses

The most common reason for ambulance assignment among Syrian female patients was labor and pregnancy emergencies (33.4%), while it was car accidents (10.0%) among Syrian male patients. In Syrian patients <18 years of age, the most common reason for ambulance assignment was falls (15.0%). The most common reason for ambulance assignment among <18-year-old Syrian female patients was again labor and pregnancy emergencies (16.2%), while it was falls (19.2%) among <18-year-old Syrian male patients. Among the Syrian patients aged 18-44 years, the most common reason for ambulance assignment was labor and pregnancy emergencies female patients (49.7%), while it was traffic accidents among male patients (12.6%). The most common reason for ambulance assignment among Syrian patients aged 45-65 years was chest pain (12.6%), which was also the most common reason for ambulance assignment among male and female patients in this age group when considered separately (8.6% among women, 17.3% among men). Among Syrian patients >65 years of age, chest pain was the most common reason for ambulance assignment both among all

patients (11.6%) and for each gender (10.2% among women, 13.0% among men) (Table 3).

In Turkish patients, the most common diagnosis was anxiety (7.9%) in female patients, while it was chest pain in male patients (9.2%). In Turkish patients under 18 years of age, the most common diagnosis was falls in both men and women (16.1% vs 11.1%). Turkish female patients in the 18-44 age group called an ambulance most frequently because of anxiety (14.7%), while male patients called because of traffic accidents (17.0%). Among Turkish patients aged 45-65 years, the most common diagnosis was anxiety in females (9.3%) and chest pain in males (14.9%). Among Turkish patients aged more than 65 years, women most frequently called for an ambulance because of falls (7.7%), while men called because of chest pain (10.0%).

Transfer to facilities

Of all Syrian patients, 85.1% were transferred to a hospital. Since 13.6% of these patients refused to be transferred to a hospital, the ambulance teams did not perform such interventions. Of these patients, 0.7% were diagnosed as dead at the scene and 0.6% were not transferred to a hospital because they were treated at the scene. Most of the Syrian patients (79.7%) were transferred to training and research hospitals and 19.0% were transferred to secondary care hospitals. In total, only 1.2% of these patients were transferred to university or private hospitals.

Turkish patients were mostly transferred to training and research hospitals (59.0%). Of them, 23.1% were transferred to secondary care hospitals. Those transferred to a university

Table 2. Reasons for ambulance calls by Turkish citizens and Syrians over the years

		2017	2018	2019	2020	Total
Turkish citizens	Chest pain, n (%)	22,292 (6.9)	24,660 (7.3)	27,918 (8.1)	24,599 (6.7)	99,469 (7.3)
	Falls, n (%)	20,193 (6.3)	24,724 (7.3)	26,046 (7.5)	19,918 (5.4)	90,881 (6.6)
	Traffic accidents, n (%)	20,911 (6.5)	26,686 (7.9)	24,515 (7.1)	18,631 (5.1)	90,743 (6.6)
	Anxiety, n (%)	20,085 (6.3)	21,196 (6.3)	21,545 (6.2)	15,466 (4.2)	78,292 (5.7)
	Nausea and vomiting, n (%)	14,257 (4.4)	15,539 (4.6)	16,674 (4.8)	12,925 (3.5)	59,395 (4.3)
	Other causes, n (%)	223,081 (69.5)	223,734 (66.5)	228,431 (66.2)	274,834 (75.0)	950,080 (69.4)
	Total, n (%)	**320,819 (100.0)**	**336,539 (100.0)**	**345,129 (100.0)**	**366,373 (100.0)**	**1,368,860 (100.0)**
Syrians	Birth, n (%)	1,230 (20.3)	1,140 (19.2)	1,092 (17.7)	1,215 (19.8)	4,677 (19.3)
	Falls, n (%)	382 (6.3)	426 (7.2)	369 (6.0)	348 (5.7)	1.525 (6.3)
	Acute abdomen, n (%)	397 (6.6)	366 (6.2)	392 (6.4)	369 (6.0)	1.524 (6.3)
	Traffic accidents, n (%)	390 (6.5)	437 (7.4)	348 (5.6)	300 (4.9)	1.475 (6.1)
	Anxiety, n (%)	301 (5.0)	298 (5.0)	336 (5.5)	261 (4.3)	1.196 (4.9)
	Other causes, n (%)	3.345 (55.3)	3.270 (55.1)	3.623 (58.8)	3.631 (59.3)	13.869 (57.2)
	Total, n (%)	**6,045 (100.0)**	**5,937 (100.0)**	**6,160 (100.0)**	**6,124 (100.0)**	**24,266 (100.0)**

hospitals were 10.0% of all Turkish patients. Among Turkish patients, 7.5% were transferred to private hospitals (Table 4).

Distribution of Syrian patients by case scene districts

The EMS demands of Syrian patients were most frequent in the central districts of the city (76.4%). The 5 districts in which Syrians requested EMS most often were Altındağ (29.5%), Mamak (15.5%), Keçiören (11.5%), Polatlı (9.2%), and Yenimahalle (7.4%). Of these districts, only Polatlı is not a central district (Table 5).

Discussion

In our study, the most common cause of ambulance calls in Syrian patients was labor and pregnancy emergencies, while Turkish patients made ambulance calls most frequently due to chest pain. The most common reason for ambulance assignment among Syrian female patients was labor and pregnancy emergencies, while it was traffic accidents among Syrian male patients. While the most common diagnosis in Turkish female patients was anxiety, it was chest pain in male patients. Both Syrian and Turkish patients were most frequently transferred to the training and research hospitals.

Considering the number of EMS cases in Ankara, we found that the rate of ambulance use by Syrians in 4 years constituted 1.4% of all cases. This rate did not change annually. Ninety-nine thousand Syrians live in Ankara, the capital city of Turkey, and their percentage within the city's total population is 1.77% (3). The percentage of Syrians in the city's total EMS cases is close to the percentage of Syrians in the city's total population.

Table 3. The most common reasons for assigning ambulance for Turkish citizens and Syrians

Diagnoses		<18 years of age		18-44 years of age		45-65 years of age		>65 years of age		Total	
		Diagnoses	%	Diagnoses	%	Diagnoses	%	Diagnoses	%	Diagnoses	%
Turkish Citizens	Women	Falls	11.1	Anxiety	14.7	Anxiety	9.3	Falls	7.7	Anxiety	7.9
		Traffic accidents	8.4	Traffic accidents	7.9	Chest pain	8.0	Cardiac arrest	7.3	Falls	6.6
		Anxiety	7.4	Birth	6.9	Nausea and vomiting	5.9	Chest pain	7.3	Chest pain	5.6
	Men	Falls	16.1	Traffic accidents	17.0	Chest pain	14.9	Chest pain	10.0	Chest pain	9.2
		Traffic accidents	11.5	Anxiety	6.4	Traffic accidents	6.3	Cardiac arrest	8.7	Traffic accidents	8.9
		Fever	7.9	Falls	5.9	Falls	5.1	Falls	6.1	Falls	7.0
	All	Falls	13.8	Traffic accidents	12.7	Chest pain	11.7	Chest pain	8.5	Chest pain	7.3
		Traffic accidents	10.1	Anxiety	10.4	Anxiety	5.7	Cardiac arrest	7.9	Falls	6.6
		Fever	7.7	Falls	5.3	Traffic accidents	5.5	Falls	6.9	Traffic accidents	6.6
Syrians	Women	Birth	16.2	Birth	49.7	Chest pain	8.6	Chest pain	13.0	Birth	33.4
		Falls	10.2	Anxiety	6.6	Anxiety	8.5	Cardiac arrest	6.5	Acute abdomen	6.3
		Traffic accidents	7.7	Acute abdomen	6.4	Acute abdomen	7.2	Acute abdomen	5.4	Anxiety	5.8
	Men	Falls	19.2	Traffic accidents	12.6	Chest pain	17.3	Chest pain	10.2	Traffic accidents	10.0
		Traffic accidents	13.4	Acute abdomen	8.2	Acute abdomen	5.3	Cardiac arrest	8.9	Falls	9.1
		Fever	8.3	Anxiety	6.5	Traffic accidents	4.3	Falls	5.1	Acute abdomen	6.2
	All	Falls	15.0	Birth	32.1	Chest pain	12.6	Chest pain	11.6	Birth	19.3
		Traffic accidents	10.8	Acute abdomen	7.1	Acute abdomen	6.3	Cardiac arrest	7.7	Falls	6.3
		Fever	7.9	Anxiety	6.6	Anxiety	6.2	Acute abdomen	5.1	Acute abdomen	6.3

114

Bekgöz et al. EMS use by Syrians in Ankara

Table 4. Types of transfer hospitals for Turkish citizens and Syrians

		2017	2018	2019	2020	Total
Turkish Citizens	Training and research hospitals, n (%)	71,828 (58.9)	74,625 (57.8)	78,687 (58.3)	88,259 (60.7)	241,690 (59.0)
	Secondary care hospitals, n (%)	28,731 (23.6)	29,504 (22.8)	30,780 (22.8)	36,244 (24.9)	96,596 (23.6)
	University hospitals, n (%)	12,174 (10.0)	13,868 (10.7)	14,920 (11.0)	11,986 (8.2)	40,802 (10.0)
	Private hospitals, n (%)	9,131 (7.5)	11,202 (8.7)	10,641 (7.9)	8,954 (6.2)	30,815 (7.5)
	Total, n (%)	**121,864 (100.0)**	**129,199 (100.0)**	**135,028 (100.0)**	**145,443 (100.0)**	**409,903 (100.0)**
Syrians	Training and research hospitals, n (%)	4,146 (80.9)	4,017 (79.4)	4,079 (79.5)	4,214 (79.1)	16,456 (79.7)
	Secondary care hospitals, n (%)	921 (18.0)	978 (19.3)	984 (19.2)	1.050 (19.7)	3.933 (19.0)
	University hospitals, n (%)	46 (0.9)	38 (0.8)	53 (1.0)	53 (1.0)	190 (0.9)
	Private hospitals, n (%)	14 (0.3)	24 (0.5)	18 (0.4)	13 (0.2)	69 (0.3)
	Total, n (%)	**5,127 (100.0)**	**5,057 (100.0)**	**5,134 (100.0)**	**5,330 (100.0)**	**20,648 (100.0)**

Table 5. Distribution of EMS cases of Syrians under temporary protection in Ankara by districts and years

	Population (2020)	2017	2018	2019	2020	Total
Akyurt, n (%)	37,456 (0.7)	45 (0.7)	61 (1.0)	86 (1.4)	75 (1.2)	267 (1.1)
Altındağ, n (%)	396,165 (7.0)	1,704 (28.2)	1,738 (29.3)	1,993 (32.4)	1,715 (28.0)	7,150 (29.5)
Ayaş, n (%)	13,686 (0.2)	28 (0.5)	32 (0.5)	38 (0.6)	19 (0.3)	117 (0.5)
Bala, n (%)	25,780 (0.5)	8 (0.1)	6 (0.1)	5 (0.1)	5 (0.1)	24 (0.1)
Beypazarı, n (%)	48,732 (0.9)	138 (2.3)	167 (2.8)	166 (2.7)	163 (2.7)	634 (2.6)
Çamlıdere, n (%)	888 (0.2)	5 (0.1)	9 (0.2)	10 (0.2)	4 (0.1)	28 (0.1)
Çankaya, n (%)	925,828 (16.3)	363 (6.0)	303 (5.1)	390 (6.3)	539 (8.8)	1.595 (6.6)
Çubuk, n (%)	91,142 (1.6)	156 (2.6)	155 (2.6)	189 (3.1)	165 (2.7)	665 (2.7)
Elmadağ, n (%)	45,122 (0.8)	40 (0.7)	18 (0.3)	14 (0.2)	27 (0.4)	99 (0.4)
Etimesgut, n (%)	595,305 (10.5)	111 (1.8)	132 (2.2)	145 (2.4)	131 (2.1)	519 (2.1)
Evren, n (%)	3,045 (0.1)	5 (0.1)	5 (0.1)	1 (0.0)	0 (0.0)	11 (0.0)
Gölbaşı, n (%)	140,649 (2.5)	77 (1.3)	48 (0.8)	34 (0.6)	69 (1.1)	228 (0.9)
Güdül, n (%)	8,438 (0.1)	2 (0.0)	1 (0.0)	3 (0.0)	0 (0.0)	6 (0.0)
Haymana, n (%)	28,922 (0.5)	46 (0.8)	61 (1.0)	62 (1.0)	72 (1.2)	241 (1.0)
Kalecik, n (%)	56,736 (1.0)	22 (0.4)	23 (0.4)	14 (0.2)	15 (0.2)	74 (0.3)
Kahramankazan, n (%)	12,941 (0.2)	81 (1.3)	109 (1.8)	104 (1.7)	100 (1.6)	394 (1.6)
Keçiören, n (%)	938,568 (16.6)	688 (11.4)	680 (11.5)	695 (11.3)	723 (11.8)	2,786 (11.5)
Kızılcahamam, n (%)	27,507 (0.5)	17 (0.3)	32 (0.5)	35 (0.6)	23 (0.4)	107 (0.4)
Mamak, n (%)	669,465 (11.8)	1,117 (18.5)	978 (16.5)	764 (12.4)	907 (14.8)	3,766 (15.5)
Nallıhan, n (%)	27,434 (0.5)	9 (0.1)	6 (0.1)	8 (0.1)	2 (0.0)	25 (0.1)
Polatlı, n (%)	126,623 (2.2)	515 (8.5)	580 (9.8)	580 (9.4)	559 (9.1)	2,234 (9.2)
Pursaklar, n (%)	157,082 (2.8)	161 (2.7)	123 (2.1)	160 (2.6)	93 (1.5)	537 (2.2)
Sincan, n (%)	549,108 (9.7)	150 (2.5)	195 (3.3)	197 (3.2)	173 (2.8)	715 (2.9)
Şereflikoçhisar, n (%)	33,310 (0.6)	80 (1.3)	67 (1.1)	55 (0.9)	50 (0.8)	252 (1.0)
Yenimahalle, n (%)	695,395 (12.3)	477 (7.9)	408 (6.9)	412 (6.7)	495 (8.1)	1,792 (7.4)
Total	**5,663,322 (100.0)**	**6,045 (100.0)**	**5,937 (100.0)**	**6,160 (100.0)**	**6,124 (100.0)**	**24,266 (100.0)**

EMS: Emergency medical services

Karakuş et al. (6) found that 88.8% of Syrian patients who applied for emergency department in a Turkish city closer to the Syrian border were men. In our study, unlike the findings in the literature, most of the patients were women. We suggest that the reason why the number of male patients in this study was higher than ours was that this study was conducted in a war zone and that those affected in the war were mostly men. In another study evaluating the EMS use of Syrians, 55.2% of Syrian patients were women (7). The findings of this study are similar to ours. We suggest that this is because it was conducted in a city like ours, far from the war zone of the Syrian border. Syrian children aged 0-18 years and Syrian women constitute 70.5% of all Syrian migrants (9). Because these Syrian immigrants live in a foreign country and culture, they have difficulty accessing healthcare services of hospitals. Therefore, they frequently use the ambulance service even in non-emergency events to easily reach the health services of the hospitals by ambulance transport.

In a study on Syrians in Turkey, it was found that they mostly presented emergency departments due to soft tissue disorders (10). In the same study, labor and pregnancy emergency events were not among the most common reasons for the presentation (10). In that study, by Kaya et al. (10), the fact that most patients (58.2%) who applied to the emergency department were men may have led to that result. In a study by Baykan and Aslaner (11) it was found that Syrian patients applied to gynecology and obstetrics clinics three times more often than Turkish citizens. We found in our study that the most common reason for ambulance calls was labor and pregnancy emergencies. In our study, the fact that most patients were female, their mean age was lower contributed to labor and pregnancy emergency disorders being the most common reason for them to call on EMS.

In a study by Vural et al. (12), Syrian female migrants conceived at earlier ages, their antenatal care was insufficient, and they were at risk of adverse pregnancy outcomes. We found that, in our study, the most common reason for assigning ambulances to early-aged patients was labor and pregnancy emergencies. The reason why ambulances were most frequently assigned to Syrian patients due to labor is that most of the Syrian patients in our study, similar to the literature, were women of childbearing age.

In a study examining EMS data from the United States, it was found that the most common reason for ambulance use among young patients was trauma, while it was cardiac issues among others (13). In our study, we found that the reasons for assigning ambulances to patients were trauma in young patients and cardiac causes in other than young patients, in line with the literature.

In a study by Altıner and Yeşil (8) evaluating the use of EMS among Syrian patients, most of the patients (69.4%) were transferred to training and research hospitals. In the same study, it was found that only 3% of patients were transferred to university and private hospitals (8). In our study, we found that the hospitals where patients were transferred most frequently were training and research hospitals, in line with the literature. We think that most patients are transferred to the hospitals owned by the MoH because Syrian immigrants under temporary protection in Turkey benefit from these hospitals free of charge in accordance with the health policies in the country.

In another study conducted in Turkey, it was found that emergency calls of Syrian patients were most frequently from the districts of the city center (8). Similarly, in our study, emergency calls of Syrian patients were most frequently from the districts of the city center (76.4%). The 5 districts of the Ankara EMS with the highest number of Syrian patients were Altındağ, Mamak, Keçiören, Polatlı, and Yenimahalle. Of these districts, only Polatlı is not in the city center.

The most important limitation of our study was that markers that would illustrate the disease severity, such as vital signs and triage codes, were not evaluated because they were not available in the ASOS database. If these markers could be obtained, the severity of the patients and unnecessary ambulance calls could be evaluated. Additionally, since we could not reach more details about the diagnoses such as falls and traffic accidents, we could not analyze them in detail. We suggest that future studies can evaluate the severity of the disease and detailed diagnosis of Syrian patients by analyzing these issues as well.

Conclusion

Due to the migration from Syria to Turkey because of the civil war in Syria, Turkish EMS teams began treating Syrian patients, especially in certain regions. Most of the Syrian patients treated by the ambulance teams consisted of women and young patients. The most common reason for the ambulance call of the Syrian patients was labor and pregnancy emergencies, and the most common diagnosis recorded by the teams after the EMS intervention was labor and pregnancy emergencies. Turkish patients most frequently called for an ambulance due to chest pain. Additionally, there was a statistically significant difference between Turkish and Syrian patients in terms of reasons for calls, and diagnoses.

Authorship Contributions

Concept: B.B., Design: B.B., Data Collection or Processing: E.U., Analysis or Interpretation: İ.Ş., E.U., Literature Search: İ.Ş., Writing: B.B.

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