ANKARA MEDICAL JOURNAL

Research Article

Ankara Med J, 2024;(4):405-416 // 10.5505/amj.2024.37928

EVALUATING PATIENTS REFERRED TO FAMILY MEDICINE OUTPATIENT CLINIC AT A TERTIARY CARE HOSPITAL

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Submitted: 09.09.2024 // Accepted: 09.12.2024

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ANKARA MEDICAL JOURNAL

Abstract

Objectives: This study aims to analyze the patients transferred from the emergency triage clinic to the family medicine outpatient clinics and the patients returning to the emergency department with the same or similar complaints within 10 days.

Materials and Methods: An analytical cross-sectional study was conducted with 370 patients who applied to family medicine outpatient clinics. Patients who agreed to participate in the survey were asked about their complaints, whether their complaints had been resolved, the status and reasons for return visits to the emergency department, and their attendance at the relevant clinics. The approval of the University of Health Sciences Ankara Bilkent City Hospital Ethics Committee (approval number E2-22-1719) was obtained before conducting a study involving 370 volunteers admitted as patients to the Family Medicine Outpatient Clinic at a tertiary care center in Ankara.

Results: The average age of 370 patients who participated in the study was 38.8 ± 14.3. These patients consulted the family physicians with the complaints which can be split as 18.4% sore throat and nasal discharge, 14.6% musculoskeletal pain, and 31.6% of the patients revisited the emergency service. 21.4% of the patients who revisited the emergency service requested IV (intravenous) therapy, and 17.9% requested an injection. The most frequent symptoms observed in return visits to the emergency service were fever with a 50% rate and urinary disorders with a 48.1% rate.

Conclusion: It is a public health issue to have overcrowded emergency rooms. Improving health literacy, better informing the patients, and optimizing the appointment systems can reduce the number of people overcrowding the emergency rooms.

Keywords: Emergency department, family medicine, visit.

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Introduction

Emergency departments are facilities that patients visit when health issues unexpectedly occur or when accidents happen.[1] The percentage of admission to the emergency departments is 30% in Turkey while this number decreases to 5 to 8% in developed countries.[2] This may lead to increased mortality and morbidity in emergency departments or cause delays in cases requiring urgent intervention. Recently, there has been ongoing study and several implementations to ease overcrowding and enhance patient treatment quality.[3-4]

The consensus when patients return shortly after they are treated and discharged from the emergency department with the same or similar conditions is that their first diagnosis was either incomplete or insufficient. The studies on this subject cannot fully determine why these patients return, but it is believed that there might be various reasons nonetheless.[5]

Patients who frequently use emergency services for non-urgent and non-relevant reasons comprise a significant proportion of admissions to the emergency department.[6] These patients cause hospitals to become overcrowded and busy.[7]

Primary care units are vital in organizing and coordinating health care services. The most important part of healthcare services provided worldwide is the concept of family medicine, known by different names in various countries. Family medicine should fulfill the primary level of healthcare services. It is expected more than 90% of patients admitted to family medicine services can have their issues resolved.

The Republic of Turkey Ministry of Health published a circular numbered 54567092, titled 2018/2 "Shift Adjustment or Shift Specialty Clinic Application" on January 31, 2018, in which the clinics in the non-urgent care are separated into Area 1 and Area 2. Through the non-urgent care area 2, has been attempted to prevent overcrowding and excessive wait times.[8]

This study aims to analyze the patients who arrive at the emergency department without urgent causes and are transferred to the non-urgent care area 2 by the triage clinic, the number and reasons for readmission to the emergency departments for treatment as well as to analyze the outcome of whether these patients went to the relevant clinics which they were transferred.

Materials and Methods

This study was carried out as an analytical cross-sectional study using the patients admitted to the family medicine outpatient clinic non-urgent care area 2 at the tertiary care center in xxx between the 1st of January 2022 and the 31st of March 2022. The population sample was calculated with a minimum of 370 individuals with a 95% confidence level and a 5% margin of error, based on approximately 12,000 adult patients visiting the family medicine outpatient clinic at the tertiary care center in Ankara over three months. The volunteers were included in the study in case of their own volition and had the right to withdraw from the study at any time they chose. Forgotten applications, minors, and patients who applied intending to receive an examination or prescription were excluded from the study. The approval of the University of Health Sciences Ankara City Hospital Ethics Committee (approval number E2-22-1719) was obtained before conducting a study involving 370 volunteers admitted as patients to the Family Medicine Outpatient Clinic at a tertiary care center in Ankara.

Examining the family medicine outpatient clinic records for the 3 months constituting the research population, it was found that around 12,000 registered patients visited the clinic. Nearly 10,000 of these patients were transferred to the non-urgent care area 2 from the emergency department. Using the sample size formula for a known population to estimate an unknown prevalence, the minimum sample size was determined to be 370 for a 95% confidence level and a 5% margin of error. To identify the patients for sampling, one in every 27 individuals was systematically selected from the 10,000 patients, resulting in a total of 370 participants. However, some of the resulting 370 patients were not non-urgent care area patients, thus, an additional reserve list of 130 individuals was created by selecting one in every 70 individuals from the same list. In cases where a patient could not be reached by phone or the patient terminated the interview, a backup list was used. Initially, those on the main list were contacted, and after excluding the patients who were not from the non-urgent care area or unwilling to participate in the study, 253 individuals agreed to participate. Subsequently, patients from the reserve list were selected and 117 individuals were added to achieve a total of 370 participants. The selection process was terminated once the target number of participants was achieved.

Initially, verbal consent was obtained from all participants. The study proceeded with those who gave their consent. Demographic data was collected, including age, gender, marital status, and insurance coverage, along with the presenting complaints, by examining the patient records.

The participants were asked questions in the data collection created by the researcher. It was inquired via phone whether the presenting complaints had been resolved if the patient had returned to the emergency department within 10 days of their initial visit, if they had attended the referred clinic, whether they had scheduled an appointment with the referred clinic, and if so, which specialty they had an appointment with.

Additionally, it was asked if they had returned to the emergency department and, if applicable, the reason for their return, as well as whether they had consulted their family physician.

Data analysis was performed using SPSS version 26.0. Descriptive statistics were reported as frequencies and percentages for categorical variables and as means, standard deviations, medians, minimum, and maximum values for numerical variables. The Chi-square test and Fisher-Freeman-Halton tests were used to compare categorical variables. The normality of numerical data was assessed with the Kolmogorov-Smirnov test. Due to the data not following a normal distribution, the Kruskal-Wallis and Mann-Whitney U tests were applied for comparisons. Post-hoc analyses were corrected using the Bonferroni method. The results were evaluated with a 95% confidence interval and p-values less than 0.05 were considered to be statistically significant.

Results

Sociodemographic characteristics of the participants during the study period were as follows; median age was 37, 53.6% were female, 46.2% were male, and 58.4% were married (Table 1).

Table 1: Socio-demographic Characteristics of the Patients

Age (year)	Mean±sd	38.82±14.35
	Median	37
	Min-max	18-84
Sex n (%)	Female	199(53.8)
	Male	171(46.2)
Marital Status n (%)	Married	216(58.4)
	Single	106(28.6)
	Divorced/deceased spouse	48(13.0)
Total		370(100)

Examining the distribution of initial patient complaints revealed that the most common reasons were sore throat and nasal discharge at 18.4%, followed by musculoskeletal pain at 14.6%, ear pain at 11.1%, and cough at 11.1%. The analysis of the reasons for revisiting the emergency department among 116 patients shows that

21.4% of these patients requested an IV therapy, 17.9% requested an injection, 16.2% wanted immediate resolution to their complaints, and 11.9% went for a consultation (Table 2).

Table 2: The Distribution of Initial Patient Complaints and The distribution of reasons for patients revisiting the emergency department

Initial Complaint	n	%	Reason for revisiting ED*	n	%
Sore throat, nasal discharge	68	18.4	Request for an IV therapy	25	21.4
Musculoskeletal pain	54	14.6	Request for an injection	21	17.9
Ear pain	41	11.1	Request for an immediate solution	19	16.2
Cough	41	11.1	Visiting ED for a consultation	14	11.9
Symptoms related to the GI(gastrointestinal) System	39	10.5	Persistent complaints despite treatment	11	9.4
Itch/Rash	35	9.4	Increasing complaints	10	8.5
Symptoms related to urinary system	27	7.3	Dissatisfaction with the treatment	7	6.0
Exhaustion, fatigue	23	6.2	Dissatisfaction with the doctor	2	1.7
Burning and stinging sensation in the eye	17	4.6	Unable to attend the clinic during work hours	2	1.7
Fever, chills	10	2.7	Unable to secure an appointment	2	1.7
Headache	7	1.9	Other	4	3.6
Other	8	2.2			
Total	370	100.0	Total	117	100.0

*In patients who stated more than one reason, the first reason was taken into consideration.

74.9% of the patients noticed their complaints disappeared, 31.6% revisited the emergency department, 31.9% scheduled an appointment and 19.2% attended related clinics. The patients transferred to urgent care comprised 2.7% of the total patients. 2.4% of the patients came for a follow-up with a family physician, while 2.2% preferred a private hospital. 60.2% out of 118 patients who made an appointment visited related clinics within 10 days (Table 3).

Among the 29 patients who did not schedule an appointment despite continuing symptoms, 58.6% were unable to secure an appointment, 17.3% could not attend the clinic during work hours, and 13.8% did not know how to schedule an appointment.

Table 3: The distribution of patient complaints regarding the resolution of the complaints, return visits, clinic attendance, appointment scheduling, follow-up visits, and preferring private hospitals

Characteristics		n	%
Resolving Complaints	Yes	277	74.9
	No	83	22.4
	Transferred to urgent care	10	2.7
Return visits to the ED(emergency department)	Yes	117	31.6
	No	243	65.7
	Transferred to urgent care	10	2.7
Related clinic attendance	Yes	71	19.2
	No	289	78.1
	Transferred to urgent care	10	2.7
Scheduling appointments	Yes	118	31.9
	No	242	65.4
	Transferred to urgent care	10	2.7
Follow-up visits	Yes	9	2.4
	No	361	97.6
Preferring private hospitals	Yes	8	2.2
	No	362	97.8
Total		370	100.0

Upon examining the return visits to the emergency department based on initial patient complaints, it was observed that the most frequent reasons for return visits were for fever and chills with a 50% rate, and urinary system symptoms with a 48.1% rate. The least frequent return visits were for ear pain at 17.1%, headache at 20%, and itching/rash at 22.9%. The differences in return visits to the emergency department based on the initial complaint were not statistically significant (p=0.270)(Table 4).

Comparing the mean age of patients among the reasons for being unable to schedule an appointment, it was observed that those who did not know how to schedule an appointment were older (75.25±5.97), and this difference was found to be on the threshold of statistical significance (p=0.054).

Table 4: The comparison of return visits to the emergency department based on initial patient complaints

Initial complaint	Returning to ED n(%)		Total n(%)	P*
	Yes	No		
Sore throat, nasal discharge	23 (34.8)	43 (65.2)	66 (18.3)	
Musculoskeletal pain	16 (29.6)	38 (70.4)	54 (15.0)	
Ear pain	7 (17.1)	34 (82.9)	41 (11.4)	
Cough	16 (40.0)	24 (60.0)	40 (11.1)	
Symptoms related to the GI system	11 (31.4)	24 (68.6)	35 (9.7)	*0.270[a]
Itch/Rash	8 (22.9)	27 (77.1)	35 (9.7)	
Symptoms related to urinary system	13 (48.1)	14 (51.9)	27 (7.5)	
Exhaustion, fatigue	9 (39.1)	14 (60.9)	23 (6.4)	
Burning and stinging sensation in the eye	5 (29.4)	12 (70.6)	17 (4.7)	
Fever, chills	5 (50.0)	5 (50.0)	10 (2.8)	
Headache	1 (20.0)	4 (80.0)	5 (1.4)	
Other	3 (42.9)	4 (57.1)	7 (1.9)	
Total	117 (32.5)	243 (67.5)	360 (100.0)	

[a]Chi-Square Test

Discussion

This study aims to address the escalating overcrowding in emergency departments and the surge in repeated visits driven by similar complaints, both of which are adversely affecting the efficiency of our country's healthcare system. Identifying the underlying causes of these issues, seeks to guide the implementation of preventive measures and serve as a foundation for future research.

Emergency departments appeal to patients for various reasons. The increasing presence of experienced emergency physicians will further enhance the attractiveness of emergency departments by providing faster

diagnoses and more accurate treatments. Additionally, the perception that outpatient clinics are busier during the day, that emergency departments offer faster examination and laboratory procedures, and that overall waiting times in the hospital are shorter contributes to the overcrowding of emergency departments. As emergency departments that are already busy become even more crowded over time, the time allocated to patient care will decrease, and the quality of patient care will deteriorate. In response, initiatives and measures should be implemented to reduce the overcrowding in emergency departments.[5,9]

In this study, the average age of the 370 patients who first visited the family medicine non-urgent care area 2 clinics was 38.8 ± 14.3 years, with a median age of 37, a minimum of 18, and a maximum of 84. The average age of patients who returned to the emergency department was 37.9 ± 13.0 years. Various studies have reported age ranges for revisits, including 17-65 years, 30-49 years, and 35-54 years.[10-12] The most common patient complaints were sore throat and nasal discharge, followed by musculoskeletal pain, ear pain, and cough. The examination of return visits to the emergency department based on initial patient complaints showed that the highest return rates were for fever chills and urinary system symptoms. The least frequent return visits were for ear pain, headache, and itching/rash.

Studies by Hocagil et al. and Cheng et al. reported gastrointestinal complaints, infections, and respiratory system issues as the most frequent reasons for return visits. Similarly, Wu et al. identified abdominal pain, high fever, vertigo, and upper respiratory tract infections as common reasons. In Odehcouvertier et al.'s study, 32% of return visits within 30 days were attributed to abdominal pain. Differences in findings among these studies may stem from variations in the classification of complaints and the timeframes analyzed for return visits.[13-16]

It was considered that the differences between the results of this study and other studies were due to the treatment of complaints such as acute abdominal pain, severe diarrhea-vomiting, shortness of breath, and renal colic pain in different areas of the emergency department. Abdominal pain treated in the non-urgent care area of our clinic was included among gastrointestinal system complaints. Return visits within 10 days were assessed in this study, whereas other studies assessed return visits within 72 hours and 30 days[13-16]. Proportionally, the results were found to be similar.

In this study, musculoskeletal pain was present in 14.6% of initial visits, with a return visit rate of 15%. In the study by Megalla et al., it was observed that more than 10% of patients with back pain visited the emergency department multiple times with the same complaint within 2 years.[17] The percentage of initial visits with symptoms suggestive of upper respiratory tract infection was 29.5%, while the return visit rate was 40%. In the study by Akyol et al., infection-related complaints (particularly upper respiratory infections) were found to be the most frequent reason for return visits .[18]

It was noticed in this study that 31.6% of patients who made their initial visit to the family medicine non-urgent care area 2 clinics returned to the emergency department. In the United States, return visits to emergency departments constitute approximately 4.5% of all visits.[19] It is suggested that our country is the only country with emergency department visits close to 1.5 times its population.[20] According to the 2020 Health Statistics Yearbook, the population of the Republic of Türkiye is almost 83 million, while the number of primary care visits is about 253 million.[21]

Bıçakçı et al. reported a 2.4% return visit rate within 72 hours, while Verelst et al. found it to be 1.9%.[8,22] The differences may be attributed to this study's focus on return visits to non-urgent care-2 clinics.

The top four reasons for return visits to the emergency department in this study were found to be:

1. Request for IV therapy,

2. Request for an injection,

3. Request for an immediate solution,

4. Visiting ED for a consultation.

The literature search for this study showed that significant differences are observed among studies regarding the inappropriate use of emergency departments. This can be attributed to the lack of a standard criterion to measure and define the urgency with clear boundaries, differences in sociocultural levels, and public distrust in the healthcare system. It is believed in this study that frequent visits for reasons such as requesting an injection or IV therapy and seeking consultations are due to sociocultural differences between countries. There are very few studies in the literature regarding the rate of return visits to the emergency department within 10 days with the same or similar complaints. Given the diverse causes associated with revisits, the use of revisit rate as an indicator of quality has been debated. While some studies argue that revisit rates are a valid measure at the hospital level, others contend that they are insufficient as a standalone indicator of quality.[23-24]

This study was conducted during the COVID-19 pandemic, and patients with negative PCR test results were directed to non-urgent care clinics. The follow-up visit rate to the family medicine outpatient clinic was only 2.4%.

This study was conducted retrospectively, and the patients were contacted on the phone. As a result, factors such as patients' income and education levels, whether they had ongoing medical needs, their medical history, and the ease or difficulty of accessing the hospital were not fully assessed.

Remarkably, patients who did not know how to schedule an appointment had an average age of 75.25 ± 5.97, and those whose complaints had been resolved visited the emergency department slightly more often than those whose complaints had not been resolved. Return visits to the emergency department were approximately twice as high among those who had not made an appointment compared to those who had, and this situation was found to be unclear.

In conclusion, it is recommended to improve appointment systems for elderly patients, encourage visits to family medicine outpatient clinics, and educate the public that injections or IV therapies do not provide immediate cures. Initiatives to enhance health literacy and reduce unnecessary emergency department visits should be prioritized, and emergency departments should not be portrayed as easily accessible or overly attractive options. Implementing green zone practices or integrating family medicine into these areas should be viewed as complementary, not definitive, solutions.

Additionally, patients should be informed that symptoms may not resolve immediately after treatment begins and should be advised on when to return to the emergency department. Efforts should also focus on improving the time doctors spend with patients, streamlining appointment systems, enabling employees to visit clinics during work hours, and directing patients requiring non-urgent care to appropriate clinics. Promoting workplace healthcare services can further alleviate the burden on emergency departments.

Ethical Considerations: The study was approved by Ankara City Hospital, Health Sciences Ethics Committee with the approval number E2-22-1719

Conflict of Interest: The authors declare no conflict of interest.

References

1. Yataklı Sağlık Tesislerinde Acil Servis Hizmetlerinin Uygulama Usul ve Esasları. 31952 Sayılı Resmi Gazete'de yayımlanan yataklı sağlık tesislerinde acil servis hizmetlerinin uygulama usul ve esasları hakkında tebliğ. 13 Eylül 2022. Erişim adresi: https://www.resmigazete.gov.tr/eskiler/2022/09/20220913-5.htm
2. Zeytin AT, Cevik AA, Acar N, Kaya S, Ozcelik H. Characteristics of Patients Presenting to the Academic Emergency Department in Central Anatolia. Turk J Emerg Med. 2014;14(2):075-81.
3. Sartini M, Carbone A, Demartini A, et al. Overcrowding in Emergency Department: Causes, Consequences, and Solutions-A Narrative Review. Healthcare (Basel). 2022;10(9):1625. Published 2022 Aug 25. doi:10.3390/healthcare10091625
4. Kılıçaslan İ, Bozan H, Oktay C, Göksu E. Türkiye'de Acil Servise Başvuran Hastaların Demografik Özellikleri | 2005, Volume 5, Issue 1 | Turkish Journal of Emergency Medicine. Turk J Emerg Med. 2005;5(1):5-13.
5. Bicakci S, Bicakci N, Duman A, Atilla R. Characteristics of recurrent emergency department visits within 72 hours of visits for the same or related complaints. Med Sci. 01 Aralık 2016;5(4):937-40.
6. Pines JM, Asplin BR, Kaji AH, Lowe RA, Magid DJ, Raven M, vd. Frequent users of emergency department services: gaps in knowledge and a proposed research agenda. Acad Emerg Med Off J Soc Acad Emerg Med. Haziran 2011;18(6):e64-69.
7. Ej L, Ej R, Ng G. High-frequency users of emergency department care. J Emerg Med [Internet]. Haziran 2013 [a.yer 22 Kasım 2022];44(6). Erişim adresi: https://pubmed.ncbi.nlm.nih.gov/23473816/
8. 2018-2 Acil Sağlık Hizmetlerine Yönelik Düzenleme Hakkında Genelge [İnternet]. [a.yer 23 Kasım 2022]. Erişim adresi: https://shgm.saglik.gov.tr/TR,32181/2018-2-acil-saglik-hizmetlerine-yonelik-duzenleme-hakkinda-genelge.html
9. Gevrek, Orhan & Sari, Oktay & Aydogan, Umit & Akbulut, Halil & Saglam, Kenan & Özcan, Okan. (2015). Perceptions of Parents of Children Admitted to the Emergency Room and of Doctors Regarding the Urgency of Situation and the Factors Affecting Perceptions. Eurasian Journal of Emergency Medicine. 14. 183-188. 10.5152/eajem.2015.35682
10. Kent R, Bonnie L. Early emergency department representations. Emerg Med Australas EMA [Internet]. Nisan 2013 [a.yer 21 Kasım 2022];25(2). Erişim adresi: https://pubmed.ncbi.nlm.nih.gov/23560964/
11. Al Ali M, Alfalasi MR, Taimour HA, Ahmed AM, Muhammed Noori OQ. ED Revisits Within 72 Hours to a Tertiary Health Care Facility in Dubai: A Descriptive Study. *Cureus*. 2023;15(3):e36807. Published 2023 Mar 28. doi:10.7759/cureus.36807

12. Abualenain J, Frohna WJ, Smith M, Pipkin M, Webb C, Milzman D, vd. The prevalence of quality issues and adverse outcomes among 72-hour return admissions in the emergency department. J Emerg Med. Ağustos 2013;45(2):281-8.
13. Hocagil AC, Bildik F, Kılıçaslan İ, Hocagil H, Karabulut H, Keleş A, vd. Evaluating Unscheduled Readmission to Emergency Department in the Early Period. Balk Med J. Ocak 2016;33(1):72-9.
14. Cheng SY, Wang HT, Lee CW, Tsai TC, Hung CW, Wu KH. The characteristics and prognostic predictors of unplanned hospital admission within 72 hours after ED discharge. Am J Emerg Med. Ekim 2013;31(10):1490-4.
15. Wu CL, Wang FT, Chiang YC, Chiu YF, Lin TG, Fu LF, vd. Unplanned emergency department revisits within 72 hours to a secondary teaching referral hospital in Taiwan. J Emerg Med. Mayıs 2010;38(4):512-7.
16. Odeh Couvertier V, Patterson BW, Zayas-Cabán G. Association between advanced image ordered in the emergency department on subsequent imaging for abdominal pain patients. Acad Emerg Med Off J Soc Acad Emerg Med. Eylül 2022;29(9):1078-83.
17. Megalla M, Ogedegbe C, Sanders AM, Cox N, DiSanto T, Johnson H, vd. Factors Associated With Repeat Emergency Department Visits for Low Back Pain. Cureus. Şubat 2022;14(2):e21906.
18. Akyol C, Hakbilir O, Akyol JA, Tür ÇF, Oktay C. Acil servise aynı şikayet ile tekrar başvuran hastaların değerlendirilmesi. Türkiye Acil Tıp Dergisi. 2006;6(3):108-16.
19. Ling DA, Sung CW, Fang CC, et al. High-risk Return Visits to United States Emergency Departments, 2010-2018. West J Emerg Med. 2022;23(6):832-840. Published 2022 Oct 18. doi:10.5811/westjem.2022.7.57028
20. Karacay P. Emergency department crowding and possible solutions/Acil servis kalabaligi ve cozum onerileri. J Educ Res Nurs. 01 Mayıs 2010;7(2):20-5.
21. Bakanligi TCS. Sağlık İstatistikleri Yıllığı 2020 Yayınlanmıştır [İnternet]. T.C. Saglik Bakanligi. [a.yer 23 Kasım 2022]. Erişim adresi: https://www.saglik.gov.tr/TR,89801/saglik-istatistikleri-yilligi-2020-yayinlanmistir.html
22. Verelst S, Pierloot S, Desruelles D, Gillet JB, Bergs J. Short-term unscheduled return visits of adult patients to the emergency department. J Emerg Med. Ağustos 2014;47(2):131-9.
23. Pham JC, Kirsch TD, Hill PM, DeRuggerio K, Hoffmann B. Seventy-two-hour returns may not be a good indicator of safety in the emergency department: a national study. Acad Emerg Med. 2011;18(4):390-397. doi:10.1111/j.1553-2712.2011.01042.x
24. Hiti EA, Tamim H, Makki M, Geha M, Kaddoura R, Obermeyer Z. Characteristics and determinants of high-risk unscheduled return visits to the emergency department. Emerg Med J. 2020;37(2):79-84. doi:10.1136/emermed-2018-208343