

ORIGINAL ARTICLE

Year : 2017 | Volume : 6 | Issue : 2 | Page : 37--41

Socio-demographic profile of medical emergencies at the University of Ilorin Teaching Hospital

Olushola Abdulrahman Afolabi¹, Kehinde A Adekeye², Chima Kingsley P. Ofoegbu¹, Abdulrasheed A Nasir¹, Jubril O Bello¹, Lukman O Abdur-Rahman¹, Gbadebo H Ibraheem¹, Babatunde A Solagberu³,

¹ Center for Injury Research and Safety Promotion; College of Health Sciences, University of Ilorin/University of Ilorin Teaching Hospital, Ilorin, Nigeria

² Federal Medical Center, Ido Ekiti, Nigeria

³ Center for Injury Research and Safety Promotion, University of Ilorin/University of Ilorin Teaching Hospital, Ilorin; Lagos State University College of Medicine, Lagos State University Teaching Hospital, Lagos, Nigeria

Correspondence Address:

Dr. Olushola Abdulrahman Afolabi

Center for Injury Research and Accident Safety Promotion, College of Health Sciences, University of Ilorin/University of Ilorin Teaching Hospital, Ilorin
Nigeria

Abstract

Background: Hospital emergency departments (EDs) play a vital role in the health-care system, providing care for patients with acute illness and injury, and access to the health system in Nigeria. **Aim:** The aim of the study is to determine the sociodemographic profile of medical presentation seen EDs of a teaching hospital. **Methods:** This was a cross-sectional study of patients presenting at the medical accident and emergency (A/E) at the University of Ilorin Teaching Hospital over a period of 12 months. Ethical approval was obtained from the Hospital Ethical Review Committee to carry out the study. Information obtained includes demographic data, clinical presentation, duration of stay in emergency, and outcome in the EDs within 48 h of arrival. Data were analyzed using SPSS version 16 computer software, and results were presented in tables and figures. **Results:** A total of 796 were seen over the study period. About 54.1% (431) were male and 45.9% (365) were female giving a male: female ratio of 1.2:1. Most of the patients (650, 81.7%) were from Ilorin township or its immediate environs, and about 32.4% were unemployed. About 58% (462) of our patients presented to the ED without a referral either from a primary or secondary health care. Stroke accounted for 75 (9.4%) of diagnosis, diabetes mellitus and its complications in 59 (7.4%), systemic hypertension and its complications in 52 (6.5%), malaria in 49 (6.2%), sickle cell anemia in 37 (4.6%), and chronic heart failure in 21 (2.6%). About 29% (231) stayed beyond 24 h on the ED before being moved to the ward, 26% (207) stayed longer than 48 h due to nonavailability of bed space on the ward and financial constraints, while 32.2% were either transferred or discharged within and mortality was recorded in 12.8% (102). **Conclusion:** Male utilizes the medical ED more than the females, most of the patients were in the younger age group, and majority of whom are self-employed. Most patients were walk-in patients. The most common reason for presentation at the medical ED for admission was stroke which was also the leading cause of death.

How to cite this article:

Afolabi OA, Adekeye KA, Ofoegbu CK, Nasir AA, Bello JO, Abdur-Rahman LO, Ibraheem GH, Solagberu BA. Socio-demographic profile of medical emergencies at the University of Ilorin Teaching Hospital. Afr J Trauma 2017;6:37-41

How to cite this URL:

Afolabi OA, Adekeye KA, Ofoegbu CK, Nasir AA, Bello JO, Abdur-Rahman LO, Ibraheem GH, Solagberu BA. Socio-demographic profile of medical emergencies at the University of Ilorin Teaching Hospital. Afr J Trauma [serial online] 2017 [cited 2019 Apr 25];6:37-41

Available from: <http://www.afjrtrauma.com/text.asp?2017/6/2/37/254634>

Full Text

Introduction

Hospital emergency departments (EDs) play a vital role in the health-care system, providing care for patients with acute illness and injury, and access to the health-care system in Nigeria. Over the past 15 years in the developed world,[1],[2],[3],[4] EDs have become progressively more congested due to the combined effects of increasing demand for care,[5],[6],[7],[8] increased complexity of care, and access block.[1],[2],[3],[9] In Nigeria, the congestion is due to nonfunctional primary and secondary health-care levels. ED congestion has implications for patient outcomes[1] as well as for the efficiency and effectiveness of ED operations as evidenced by staff and patient satisfaction.[1]

High rates of ED use create a strain on the health-care system by leading to overcrowding,[10],[11] but they can also be seen as a marker of systemic problems, including poor access to nonemergency health care and the failure to prevent injuries and illnesses.[12]

The University of Ilorin Teaching Hospital (UITH) is a 650-bed tertiary health-care facility located within Ilorin, the capital of Kwara State, North-Central region of Nigeria. It serves a wide variety of patients and receives referrals from neighboring states and towns. It is easily accessible from any part of the city and provides emergency and inpatient medical services round the clock for patients. Worldwide, access to and the manner of use of the accident and emergency unit (ED) is a point of great concern. Issues regarding duration of stay, crowding of the ED, and promptness of care are paramount to both the patients and health-care providers. These are issues that are regularly undergoing changes in order to provide better service to patients. The quality of care and the resources available at the ED may go a long way to influence the outcome of patients who presented there and also the pressure for inpatient beds. In Nigeria, most patients pay out of pocket and have no health insurance, and thus, cost for this group may be an important factor in their use of the ED and may adversely affect their outcome. Data on the workload of medical ED in Nigeria are sparse. The aim of this review was to determine the sociodemographic profile of patients presenting at the medical accident and emergency and the outcomes of their care.

Methods

This was a cross-sectional study of patients presenting at the medical A/E at the UITH over a period of 12-month period (January–December 2007). Ethical approval was obtained from the Hospital Ethical Review Committee to carry out the study. All consecutive consenting patients who were admitted into the ED aged 14 years and above were included in this study. Patients brought in dead, and surgical cases were excluded from the study. Information obtained from the patients' case records within 48 h of arrival included sociodemographic data, clinical presentation, duration of stay in emergency, and outcome in the EDs. The data were entered and analyzed using SPSS version 16 (The Statistical Package for the Social Sciences (SPSS) is a software package used in statistical analysis of data. It was developed by SPSS Inc. and acquired by IBM in 2009. In 2014, the software was officially renamed IBM SPSS Statistics) computer software and results were presented in tables and figures.

Results

A total of 820 patients presented to UITH Medical ED during the study period. About 10 patients were brought in dead, 11 were purely surgical cases, while 27 had incomplete data for analysis. A total of 796 medical cases were analyzed. About 54.1% (431) were male and 45.9% (365) were female giving a male: female ratio of 1.2:1 [Figure 1]. Six hundred and fifty patients (81.7%) were from Ilorin township and its immediate environs while 18.4% were from the neighboring states [Table 1]. Age range was 14–75 years with a mean age of 43.71 ± 4.92 years. Patients in the age group of 21–30 years were the modal age group (188, 23.6%) as seen in [Table 1]. Most of the patients who presented were self-employed in 48.2% (384) than unemployed 32.4% (258) and civil servant 19.4% (154) as seen in [Figure 2].{Figure 1}{Table 1}{Figure 2}

About 58% (462) of our patients presented to the ED without a referral either from a primary or secondary health-care provider. Among those with referrals, private health-care facility accounted for the bulk of referrals in 16.7% (133) as seen in [Figure 3]. Eighty-four different diagnosis were captured in our study, the highest was stroke in 75 (9.4%), others were AIDS 66 (8.3%), diabetes mellitus and its complications in 59 (7.4%), systemic hypertension and complications in 52 (6.5%) then malaria in 49 (6.2%), sickle cell anemia in 37 (4.6%) and chronic heart failure in 21 (2.6%), others like dyspepsia, sepsis, acute renal failure, chronic obstructive pulmonary disease, asthma, epilepsy, acute psychosis and chronic liver diseases constituted about 55% (438).{Figure 3}

On the duration of stay in the ED, about 29% (231) stayed beyond 24 h on the ED before being moved to the ward, 26% (207) stayed more than 48 h, while 32.2% were either transferred or discharged within 24 h. For those who remained in the ED after 48 h, various reasons were provided by most of the patients why they are not transferred to the wards, about 39% of them were due to nonavailability of bed space, 54% were due to financial constraint, and 7% have no specific reasons rather than they wanted to stay and be discharged from the ED.

Overall, about 60.6% of the patients (483) were transferred to the ward for further management, 26.6% (212 patients) were discharged home from ED, most of whom were due to malaria, and 102 (12.8%) died. Mortality was recorded in 12.8% of the patients. The highest mortality was recorded among patients with the diagnosis of strokes in 17 (16.7%) followed by sepsis syndrome in 11 (10.8%), AIDS and decompensated chronic liver disease in 11 (10.8%), 10 (9.8%), and 8 (8%), respectively, while other diagnosis constituted 45 (43.9%) of the mortality.

Discussion

ED is an integral part of the safety net services anywhere in the world.[13] Although EDs were originally designed for treating urgent and emergent conditions, they are increasingly being used by certain segments of the population as a provider of last resort for nonurgent care.[14],[15],[16],[17],[18] Emergency units are designed to accept walk-in patients and referrals.[18] We had 796 medical emergencies in our ED over a period of 12 months. The male: female ratio 1.2:1, which was similar to the findings in a similar center in the south-south region of Nigeria.[19],[20] The most frequent age group was 21–30 years and this may reflect the ease of access of this group to timely health care, and it also encompasses the economically active group. Mean age was 43.71 ± 4.92 years. These figures are similar to the findings of other authors.[1],[2],[3] Most of our patients were resident in Ilorin; however, our study did not differentiate whether they were immigrants or indigenous as there were no data to reference this information as compared to a study on emergency utilization in Barcelona by Buron et al. Government employees accounted for 19.4%, self-employed persons for 48.2%, and dependents (housewives, aged, students, and retirees) for 32.4%. Most patients were walk in about 58.8% similar to study elsewhere in Nigeria.[20],[21] This was at variance with the developed world where phone calls were used for utilization of emergency services.[22],[23] The referral pattern showed that 133 were referred from outside the hospital and 100 were in-house referral from the general outpatient department, which is the pattern reported in most work done in Nigeria. The most common diagnosis was stroke in 75 (9.4%) patients followed by immunodeficiency diseases such as AIDS complication in 66 (8.3%), diabetes mellitus and its complications in 59 (7.4%), and then systemic hypertension (and its complications) and malaria fever. The World Health Organization had projected that diabetes mellitus and stroke would be the leading causes of morbidity in many developing countries by 2025.[24] The mean duration of stay at the A/E was 23.5 ± 7.21 h. The goal in ED is to stabilize a patient within 48 h of presentation. The most common reason for a prolonged stay was inadequate bed space on the specific wards, followed by financial constraints as some patients could not pay the admission fees as we live in a low-income setting where majority of the patients live on a daily income of <2USD and health-care service is out-of-pocket expenses. In Nigeria, out-of-pocket health care is the most common also called fee-for-service in our environment. As compared to the developed world where insurance takes care of the health of individuals either working with government or not, this may support the utilization rates. This further supports why most patients have delay in transit to the specific wards. Although for most patients, no reason was given for staying more than 24 h in the ED. The mortality was 12.8%, and this was quite higher than reports from other reports.[19],[22] About 482 (60.6%) were transferred to the ward, and 212 (26.6%) were discharged home. Stroke patients accounted for 16.7% of the mortality and also the highest number of those transferred to the ward with prolonged hospital stay. Other causes of mortality were acute diabetic emergencies, AIDS complications, and decompensated chronic liver disease, accounting for 12.7%, 7.8%, and 7.8%, respectively. This was similar to the findings of other investigators.[19] AIDS complication was the second leading cause for ward admission. Malaria fever accounted for the majority of the patients attended to and discharged within a short period in the ED, probably because they may have been adequately managed at a primary health-care facility rather than a tertiary one. Furthermore, 95.8% of those with diagnosis of malaria stayed <24 h. The most common problems encountered by the physician were insufficient diagnostic support usually in terms of radiologic imaging and the inability of the patients to do the required investigations for further medical care. This was similar to previous results. In 1% of the patients, there was difficulty communicating as there was nonavailability interpreter to explain to them the details of some requested investigation and treatment in the best language understood by them.

Conclusion

Our study showed that most of the patients were in the younger age group, males, and self-employed. Most patients were walk-in patients. The most common reason for presentation at the medical ED for admission was stroke which was also the leading cause of death. Inadequate bed space and financial constraints were responsible for prolonged stay in the EDs.

Financial support and sponsorship

Nil.

Conflicts of interest

There are no conflicts of interest.

References

- 1 Richardson DB, Mountain D. Myths versus facts in emergency department overcrowding and hospital access block. *Med J Aust* 2009;190:369-74.
- 2 Richardson DB. Responses to access block in Australia: Australian Capital Territory. *Med J Aust* 2003;178:103-4.
- 3 Fatovich DM, Nagree Y, Sprivulis P. Access block causes emergency department overcrowding and ambulance diversion in Perth, Western Australia. *Emerg Med J* 2005;22:351-4.
- 4 Fatovich DM, Hirsch RL. Entry overload, emergency department overcrowding, and ambulance bypass. *Emerg Med J* 2003;20:406-9.
- 5 Queensland Ambulance Services Audit Report. Brisbane: Queensland Ambulance Services; 2007. Available from: https://www.ambulance.qld.gov.au/docs/Annual_Report_2007_08LR.pdf. [Last accessed on 2018 Dec 17].
- 6 Productivity Commission. Report on Government Services 2010. Productivity Commission. Report on Government Services 2010. Productivity Commission; 2010. Available from: http://www.uat.pc.gov.au/_data/assets/pdf_file/0005/93902/rogs_2010_volume1- [Last accessed on 2018 Mar 01].
- 7 AIHWAustralian Hospital Statistics 2007 08. Health Services Series No 33. Canberra: Australian Institute of Health and Welfare, cat. No. HSE 71; 2009. Available from: <https://www.aihw.gov.au/reports/australias-welfare/australias-welfare-2017> [Last accessed on 2018 Dec 10].
- 8 AIHW. Australian Hospital Statistics 2006 07. Health Services Series No. 31. Canberra: Australian Institute of Health and Welfare, cat. No. HSE 55; 2008. Available from : <https://www.aihw.gov.au/reports/hospitals/ahs-2006-07> [Last accessed on 2018 Dec 10].
- 9 Roberto Forero, Sally McCarthy and Ken Hillman. Access block and emergency department overcrowding. *Crit Care* 2011;15:216.doi: [10.1186/cc9998].
- 10 Richards JR, Navarro ML, Derlet RW. Survey of directors of emergency departments in California on overcrowding. *West J Med* 2000;172:385-8.
- 11 Derlet R, Richards J, Kravitz R. Frequent overcrowding in U.S. emergency departments. *Acad Emerg Med* 2001;8:151-5.
- 12 Tyrance PH Jr., Himmelstein DU, Woolhandler S. US emergency department costs: No emergency. *Am J Public Health* 1996;86:1527-31.
- 13 Shen YC, Hsia RY. Changes in emergency department access between 2001 and 2005 among general and vulnerable populations. *Am J Public Health* 2010;100:1462-9.
- 14 Grumbach K, Keane D, Bindman A. Primary care and public emergency department overcrowding. *Am J Public Health* 1993;83:372-8.
- 15 Rust G, Ye J, Baltrus P, Daniels E, Adesunloye B, Fryer GE, *et al*. Practical barriers to timely primary care access: Impact on adult use of emergency department services. *Arch Intern Med* 2008;168:1705-10.
- 16 Suruda A, Burns TJ, Knight S, Dean JM. Health insurance, neighborhood income, and emergency department usage by Utah children 1996-1998. *BMC Health Serv Res* 2005;5:29.
- 17 Dale J, Green J, Reid F, Glucksman E. Primary care in the accident and emergency department: I. Prospective identification of patients. *BMJ* 1995;311:423-6.
- 18 Wilner D. The role of the emergency department in the delivery of rural primary care. *J Maine Med Assoc* 1977;68:401-8.
- 19 Onwuchekwa AC, Asekomeh EG, Iyagba AM, Onung SI. Medical mortality in the accident and emergency unit of the university of Port Harcourt teaching hospital. *Niger J Med* 2008;17:182-5.
- 20 Ekere AU, Yellowe BE, Umune S. Mortality patterns in the accident and emergency department of an urban hospital in Nigeria. *Niger J Clin Pract* 2005;8:14-8.
- 21 Afuwape OO, Alonge TO, Okoje VM. Pattern of the cases seen in the accident and emergency department in a Nigerian tertiary hospital over a period of twelve months. *Niger Postgrad Med J* 2007;14:302-5.
- 22 Afuwape OO, Ogunlade SO, Alonge T, Ayorinde OR. An audit of deaths in the emergency room in the university college hospital Ibadan. *Niger J Clin Pract* 2009;12:138-40.
- 23 Buron A, Cots F, Garcia O, Vall O, Castells X. Hospital emergency department utilisation rates among the immigrant population in Barcelona, Spain. *BMC Health Serv Res* 2008;8:51.
- 24 Tabish SA. Is diabetes becoming the biggest epidemic of the twenty- first century? *Int J Health Sci (Qassim)* 2007;1:V-VIII.

Thursday, April 25, 2019

[Site Map](#) | [Home](#) | [Contact Us](#) | [Feedback](#) | [Copyright and Disclaimer](#)