NON-URGENT VISITS TO EMERGENCY DEPARTMENT AND COMPARISON OF URGENCY EVALUATION BETWEEN PATIENTS AND DOCTORS

Nadia Iftikhar, Shazia Nisar, Faisal Iftikhar Ahmad Ghumman*, Mishal Iqbal, Rahat Malik, Ammala Shakeel, Muhammad Adnan, Muhammad Usman Ghani, Muhammad Arsalan Zafar, Ali Abbas Kayani, Imran Irshad, Ayesha Sajid**

Combined Military Hospital Jhelum/National University of Medical Sciences (NUMS) Pakistan, *Combined Military Hospital Rawalakot/ National University of Medical Sciences (NUMS) Pakistan, **Army Medical College/National University of Medical Sciences (NUMS) Rawalpindi Pakistan

ABSTRACT

Objective: To assess the proportion of non urgent patients presenting to the emergency department and to compare urgency evaluation between patients and doctors.
Study Design: Descriptive cross sectional study.
Place and Duration of Study: Emergency department Combined Military Hospital (CMH) Jhelum, from November 2015 to December 2015.
Material and Methods: All the patients presenting to the emergency department after working hours between 4-6 pm were documented for 16 consecutive working days. They were assessed as to the urgency of their condition by the doctor. The patients or guardians in case of children were also required to rate the level of urgency of their medical condition. The level of urgency was graded on visual analog scale from 0-10. A 5 and above score was labeled as urgent while a score of less than 5 was considered non urgent.
Results: A total of 205 patients reported in 32 hours over 16 days, to the emergency department. Of these 31 (15.12%) were assessed as emergencies by doctors while 49 (24%) were thought to be emergencies by patients. The *p*-value for this difference was 0.021. The largest group of patients visiting the emergency department was pediatric and they comprised the largest group of non urgent visits to the hospital as well.
Conclusion: Actual emergencies comprise a small proportion of visits to emergency departments while the main bulk consists of non urgent visits.

Keywords: Emergency department, Emergency services, Pakistan.

INTRODUCTION

A large number of patients report to the emergency department (medical reception centre/ medical inspection room) daily after working hours. The emergency department is open only for dealing with emergencies but many patients report after working hours as they find it more convenient and easily accessible[1,2]. Non urgent visits increase the workload of emergency departments resulting in overcrowding. Overcrowding can lead to adverse clinical outcomes as resources are channeled away from the actual emergencies[3]. Bernstein et al[4] studied the effect of overcrowding in emergency departments and found that it compromises quality of care. In addition, it leads to extra expense for both the hospitals and the patient[5]. A study was conducted to assess the level of urgency of patients presenting to our emergency department by documenting all the patients who visited the emergency department for 2 hours daily for 16 consecutive days.

MATERIAL AND METHODS

This descriptive cross sectional study was conducted at the emergency department of CMH Jhelum, a 400 bedded hospital. The hospital offers universal coverage to all armed forces personnel and their immediate family and cost-free care for emergencies (civilian and army). The study was conducted after approval of the Hospital Ethical Committee.

Correspondence: Dr Nadia Iftikhar, Dermatology Dept CMH, Jehlum Pakistan *(Email: nadiaiftikhar@gmail.com)*
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An emergency medical condition exists if the patient has acute symptoms of sufficient severity (including severe pain) such that the absence of immediate medical attention could reasonably be expected to result in placing the patient's health in serious jeopardy, serious impairment to bodily functions, or serious dysfunction of any bodily organ or part[6].

A non urgent visit is defined as a visit which if delayed for several hours would not lead to an adverse medical outcome[7]. Two hundred and five patients were selected by non-probability convenience sampling.

All patients reporting to the emergency department during two hours (4 to 6 pm) for 16 consecutive working days were documented and their details recorded. The emergency departments do not deal with gynecological/ obstetrical emergencies so this group of patients were excluded from our survey.

The questionnaire was divided into four parts. The first part included demographic details of the patients, including their age, sex, marital status, address, distance from the hospital, mode of travel and weather. The second part dealt with their disease or presenting complaint. The third part was the reason for reporting after working hours if it was any other than the emergent nature of their condition. In the fourth part, patients were asked to rate the emergent nature of their disease on a scale of 0-10; 0 being no emergency at all and 10 being a disease so serious that they thought it likely to be fatal. Similarly, doctors were also required to grade the disease on the same scale. Patients graded as 5 and above were included in emergencies while those graded between 0 to 4 were included in non urgent cases.

Statistical analysis was performed in SPSS version 21 by segregating patients in two groups according to the urgent versus non-urgent nature of visit and then calculating percentages and frequency for each category.

RESULTS

A total of 205 patients were seen in 32 hours, out of which 129 (62.9%) were male and 76 (37%) were female. A total of 196 (95.6%) patients were entitled army personnel while 9 (4.39%) patients were civilians non entitled. Out of these 69 were children of armed forces personnel, 48 were soldiers, 31 were spouses of armed forces personnel, 24 were retired soldiers, 8 were parents of armed forces personnel, 11 were

Table-I: Distribution of patients by age.

Distribution of patients by age (years)	Non urgent cases n(%)	Urgent cases n(%)	Total no of patients
0-10	55 (94.8)	3 (5.17)	58
11-20	17 (73.91)	6 (26)	23
21-30	23 (88.46)	3 (11.53)	26
31-40	41 (82)	9 (18)	50
41-50	17 (80.95)	4 (19)	21
51-60	17 (77.27)	5 (22.72)	22
61-70	4 (100)	-	4
71+	1 (100)	-	1
Total	176 (86.27)	31 (15.19)	205

Table–II: Distribution of patients on the basis of disposal (n=205).

Distribution of patients based on disposal	No. of patients
Admission	14
Referral urgent to concerned specialist	17
Referral routine to OPD	33
Treatment given and sent back home	141

civilian entitled patients, 2 were junior commissioned officers, 2 were cadets and 1 was an officer. An average of 6 patients were seen per hour by 2 doctors. The average age of the patients was 27.61 years and it ranged from 1 month to 85 years.

Among the patients seen in the evening, 69 (33.66%) were children of armed forces personnel (this being the largest category of patients), followed by 48 (23.41%) soldiers. The next prominent category is spouses of armed forces personnel that is 31 (15.12%), followed by retired armed forces personnel that is 24 (11.7%). Fifty eight (28.29%) patients were between the ages of 0-10 years, 50 (24.4%) patients were between the age group 31-40 years (table-I).

Ninety five percent of children up to 10 years of age presented for non urgent conditions. This age group showed up for non urgent conditions in emergency departments more frequently than any other age group. A greater proportion of inappropriate visits were associated with younger patients.

Out of 205 patients, on assessment by doctors, 31 (15.12%) patients actually required emergency care (table-II), while 174 (84.88%) patients were assessed to require no urgent treatment/ care. Out of 205 when patients were questioned as to the assessment of their condition 49 (24%) thought that they required emergency treatment while 156 (76%) themselves viewed their condition as nonurgent (table-III). This difference between evaluations of the urgency was found to be statistically significant between physicians and patients (p=value 0.021).

Interestingly, most of the patients, 106 (51.7%) reported in the evening after working hours as they were busy at their jobs or at school. Forty five (22%) reported for the right reason, aggravation of symptoms or recent onset of complaint, even out of these some symptoms were mild such as sore throat and patients could have waited till the next working day. The third most common reason, was absence of a suitable accompanying person, 32 (15.61%). One (0.49%) patient came from a distance of 250 km so he was late. Eight (3.9%) patients came in the evening for no specific reason. Two (0.98%) came at this time because they wanted to avoid the long queues for procurement of medication in the morning. Six (2.9%) patients came either to visit sick relatives or friends and decided to take advantage of the proximity to the emergency room. Five (2.4%) patients had transportation issues (table-IV).

Table-III: Categorization of patients urgency, by patients and doctors (n=205).

	Non urgent cases n(%)	Urgent cases n(%)
As assessed by doctors	174 (84.88)	31 (15.12)
As reported by patients	156 (76)	49 (24)

Table-IV: Reasons for reporting to emergency department (n=205).

S. No	Reasons for reporting	No. of patients
1	Busy in the morning (at work or school)	106
2	No one to accompany in the morning	32
3	Sudden Onset of symptoms after working hours or worsening within a few hours	45
4	Visiting a patient in hospital decided to discuss their own problem	6
5	Came from a long distance	1
6	No specific reason	8
7	Conveyance	5
8	Easy to get medicine as no long queues	2

DISCUSSION

The American College of Emergency Physicians has defined emergency services as health care services provided to evaluate and treat medical conditions of recent onset and severity that would lead a prudent layperson, possessing an average knowledge of medicine and health, to believe that urgent and or unscheduled medical care is required[6].

Visits to the emergency room maybe classified into four types: emergency/life threatening, urgent, non-urgent and trivial[8-10]. There is no specific definition or consensus on these different types and different people may classify patients differently[7]. Usually the patient subjectively determines the level of emergency without any medical scale being applied. A key factor contributing to the difficult and variable definition of urgency is the source of judgment. Patients and healthcare professionals frequently disagree over what constitutes a true emergency[6,11]. Our study clearly demonstrates this disparity as also evidenced by other studies[6,9].

Another important source for controversy in defining the visit urgency is the point in time in which the determination is made. An analysis of visit urgency based on a patient's presenting complaint or key symptoms and/or signs may be different than an assessment of that same patient visit at a later point in time, when a final diagnosis has been made[6].

In addition to urgent medical conditions, patients may have other reasons for choosing emergency services such as convenience, access to transport, availability of accompanying person (as women in our country are uncomfortable travelling alone without a male companion), mental health issues, prescription drug abuse, psychological problems, depression[12], locally shared custom[13] and patients avoiding to take time off from work or school.

Emergency departments are for emergencies, not for 24 hour easy access to a doctor. Non-urgent visits to emergency departments add to the workload, lead to overcrowding, increase medical cost, decrease the actual quality of treatment, and result in increased waiting time[10] for all the patients. They also result in lower quality of care as the emergency room doctors have less time to see the patient, there is no continuity of care and it is a one time visit. Patients are assessed by primary care physicians (in our hospital) and not specialists except when they are specially called for, resulting in lower quality of care. It also results in increased cost as doctors tend to over treat and over investigate patients because of their concern for the patient.

Eighty five percent (84.88%) patients were categorized as non-urgent on examination by doctors. This is a huge proportion when we compare it with other countries. The percentage of patients going to the emergency department for non- urgent problems is between 8% and 62% in the USA[7,11], between 25.5% and 60% in Canada[14,15], between 19.6% and 40.9% in Europe[16,17], 19.6% in Italy[16] and 57% in Hong Kong[18-20]. A study similar to ours, done in Oslo[3], showed 24% of the patients considered their emergency consultation to be non-urgent, while the doctors considered 64% of encounters to be non-urgent. In fact, in our study, rate of non-urgent visits to the emergency department is one of the highest in the world.

Even by their own assessment, 74% of patients themselves were aware that they did not need emergency treatment however they reported at this time because of their own convenience. Children were the most frequent group brought for non-urgent conditions, most likely because children are highly valued in the household and also because parents being committed in the mornings at work found this time more convenient. Parents also do not want children to miss school for trivial problems so they were more comfortable bringing them in the evening.

Unfortunately, our emergency departments are named medical reception centers (MRC) or

medical inspection room (MI Room). The name itself does not communicate in any way that they are meant for emergencies. So the patients assume it is for 24 hours open access to a doctor and they use it for this purpose. It is not communicated to patients at any level other than verbally by the doctors that it is for emergencies only.

Limitations of this study design were that the sample size was small and non-probality convenience sampling technique was used.

CONCLUSION

The actual number of emergencies presenting to the emergency room is small. A major chunk of patients visit for non urgent reasons.

RECOMMENDATION

Perhaps if we could provide a 24 hour medical help line where patients could discuss their medical issues with either a doctor or nurse who could guide them and then decide whether to go to the A&E dept for urgent consultation or to wait for the next working day. We could also put up posters in emergency departments emphasizing that they are to be used for emergencies only. Adopting appropriate strategies[19] and patient education[20] may help to reduce non-urgent patients reporting to emergency department. However, it is reasonable to assume that a small proportion of patients will remain indifferent to any strategy used to discourage use of emergency departments.

CONFLICT OF INTEREST

This study has no conflict of interest to declare by any author.

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