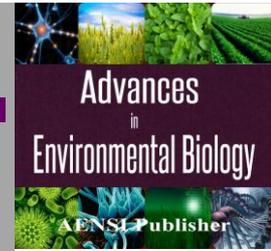




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The etiology of admitted patients in emergency department, sari, Iran

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ABSTRACT

Emergency department crowding is one of the leading problems facing emergency physicians. In this regards, we decided to study on the characteristics of the patients coming to the Emergency departments of Imam Khomeini hospital, sari, Iran during 2013. The information about age, sex, chief complaint and duration of admission was collected from the admission profile and then we analyzed the frequency of desired valuables and significant relations among them using statistical software. These data indicated that most part of reason of refer was trauma so in the region of Iran trauma is the main cause of admission in the hospitals among the young people.

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INTRODUCTION

Emergency department crowding is one of the main issues facing emergency physicians, nurses, and their patients, in most developed countries. It has been proposed that emergency department crowding is the equilibrium state of the current health care system in the world [1]. Crowded departments threaten delivery of timely care. Delays to analgesia, antibiotic therapy, and thrombolysis or percutaneous coronary intervention are all well described in the previous papers [2–6]

The medical emergency systems and the principles of triage has been developed in 20 century, in order to corresponding the fundamental needs of the society in the emergent situations including accidents, burns, and others life threatening events. Emergency departments have been recognized as an important factor to rescue the patients. Because of availability and valuable quality of medical cares and facilities provided in these centers only a little percent of people prefer to go to their own physician (1-6). Since the most of primary decisions about patients which has important rules in spending for medical cares and admission costs are taken in this department we would be able to reduce the costs via reinforcing the strengths and improving weakness (6-9). In this study we evaluated the etiology of the patients whom were admitted in the emergency department.

METHODS AND MATERIAL

The study population included the patients who were referred to emergency department in Imam Khomeini hospital sari, Iran, 2013. The information about age, sex, chief complaint and duration of admission was collected from the admission profile

Ethics:

All subjects gave their consent to participate in the study. This study was conducted in accordance with the Declaration of Helsinki and good clinical practice according to International Conference on Harmonisation guidelines.

Statistics:

For statistical analysis, data were entered to MS-excel spread sheets. The procedures included were transcription, preliminary data inspection, content analysis and finally interpretation. Investigators used

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percentages to clarify epidemiological variables (SPSS software, Version 15, Chicago, IL, USA (chi square and t test)). P value of less than 0.05 was defined as significant.

Results:

The study populations include 3330 patients involving 2070 (62.2%) male and 1260 (37.8%) female patients.

Patients divided to five groups including 0-4 yrs., 4-12, 12-30, 30-55, and more than 55 yr. (table1).

Table 1: Different group of study population

age	number	percent
0-4	30	0.9
4-12	120	3.6
12-30	1410	42.3
30-55	1260	37.8
≥55	510	15.3

The reason of refer of these series are summarized in table 2. The main reason of refer was trauma (1560 patients) and then Neurological disorders (720 patients).

Table 2: The reason of refer of these series

	Cardiopulmonary problems	Gastrointestinal problems	Neurological disorders	trauma	others
0-4	0	0	0	30(1.9%)	0
4-12	0	0	0	120(7.6%)	0
12-30	30(9.1%)	240(44.5%)	270(37.5%)	810(51.9%)	60(33.3%)
30-55	210(63.6%)	240(44.5%)	270(37.5%)	480(30.7%)	60(33.%)
≥55	90(27.3%)	60(11%)	180(26%)	120(7.6%)	60(33.%)

The outcomes of the patients were summarized in table 3. Majority of the patients (2100 cases) were released form emergency department.

Table 3: The outcomes of the admitted patients in the emergency department

	frequency	percent
Self-satisfaction	690	20.7
refers	330	9.9
release	2100	63.1
Leave without notice	180	5.4
death	30	0.9

Discussion:

In the current research we studied the etiology and outcomes of admitted patients in emergency department at Imam Khomeini hospital, sari, Iran. Our study showed that among 3330 patients which were evaluated majority of them were in age range of 12 to 30 years. These data indicated that most part of reason of refer was trauma so in the region of Iran trauma is the main cause of admission in the hospitals among the young people. So every program wants to design for these ranges of age should firstly consider the trauma at first.

The outcomes showed that 63.1 of the patients were released from emergency department that can be find that the most types of trauma were minor trauma and other minor diseases which did not need for admission in the hospitals.

There are some articles about the harms of emergency department crowding, and a smaller literature about effective interventions [10,11]. Interventions can also be grouped into input, throughput, and output. The strongest evidence comes from throughput solutions. This is a paradox, as these have the least effect on crowding, as the main cause is usually access block [12]. Although the good role of triage (13-15) should be considered that emergency department can refer the patients to their suitable gals without spending a lot of cost and times.

Therefore mainly these shows that it's better to release or refer the patients from emergency department as soon as possible.

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