



CLINICAL EMERGENCIES: PROFILE OF HOSPITAL ASSISTANCE

URGÊNCIAS CLÍNICAS: PERFIL DE ATENDIMENTOS HOSPITALARES

EMERGENCIA MÉDICA: PERFIL DEL HOSPITAL DE LLAMADAS

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Changes in the morbidity and mortality profile from chronic non-communicable diseases affect the urgency/emergency care services. We aimed to characterize the profile of emergency clinical care, according to demographic and epidemiological variables and length of stay in a teaching hospital in the interior of São Paulo, 2007. This is a descriptive, exploratory and documentary research that used official data, analyzed by descriptive statistics, discussed based on the theoretical framework of reorganization of urgency and emergency clinical care. In this period there were 5,285 clinical assistances, most were male (54.1%), with elementary education (73.9%), aged from 18 to 59 years (62.8%). Diseases of the circulatory system were the most frequent and the average length of stay in the unit was less than 6 hours (39.8%). The characterization of clinical care in the urgency/emergency service enables the work organization in the study unit and in the hospital.

Descriptors: Emergency Medical Services; Hospitals, Packaged; Nursing.

Mudanças no perfil de morbi-mortalidade por doenças crônicas não transmissíveis trazem repercussão para o atendimento às urgências/emergências hospitalares. Este estudo teve por objetivo caracterizar perfil dos atendimentos de urgência clínica, segundo variáveis demográficas, epidemiológicas e tempo de permanência, em hospital de Ensino, do interior de São Paulo, 2007. Trata-se de pesquisa descritiva, exploratória e documental, utilizando dados oficiais, analisados segundo estatística descritiva, discutidos a partir de referencial teórico de reorganização do atendimento a urgências/emergências clínicas. No período ocorreram 5.285 atendimentos clínicos, a maior parte usuários do sexo masculino (54,1%), com escolaridade de ensino fundamental (73,9%), faixa etária de 18 a 59 anos (62,8%). Doenças do aparelho circulatório foram mais frequentes e o tempo de permanência na unidade foi inferior a 6 horas (39,8%). A caracterização dos atendimentos clínicos do serviço de urgência/emergência fornece subsídios para organização do trabalho na unidade de estudo e no próprio hospital.

Descritores: Serviços Médicos de Emergência; Hospitais de Emergência e Enfermagem.

Cambios en la morbilidad y mortalidad por enfermedades crónicas no transmisibles no traen repercusiones para asistir a los departamentos de urgencias/emergencias hospitalarios. El objetivo fue caracterizar el perfil de la atención de urgencia, según las variables demográficas, epidemiológicas y de estancia en el hospital de Enseñanza, del interior de São Paulo, 2007. Investigación documental, descriptiva, exploratoria, a partir de datos oficiales, analizados por estadística descriptiva, discutidos a través del marco teórico de reorganización de la atención de emergencia/emergencias clínicas. En el periodo, ocurrieron 5.285 tratamientos clínicos, con usuarios del sexo masculino (54,1%), con estudios primarios (73,9%), de 18 a 59 años (62,8%). Enfermedades del aparato circulatorio fueron más frecuentes y la duración de la estancia en la unidad fue de menos de seis horas (39,8%). La caracterización de la atención clínica en servicio de urgencia/emergencia proporciona subvenciones para el trabajo en la unidad de estudio y en el hospital.

Descritores: Servicios de Emergencias Médicas; Hospitales de Urgencias y Enfermería.

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INTRODUCTION

The importance of meeting the demand of patients in urgency and emergency situations requires proper organization of the local health system, including the hospital as part of this system. The hospital needs to plan interventions, have a multidisciplinary team and provide physical space and resources needed for appropriate care in these units.

The population access to the health system should happen preferentially through a single entrance represented by outpatient primary care, except in urgency and emergency cases. Thus, the Primary Health Care (PHC) must be resolute, referring to the hospital service only the more complex cases, contributing to reduce the demand in urgency and emergency services ⁽¹⁾.

A healthcare network requires the spatial distribution of equipment and health services according to the epidemiological conditions of each locality, decentralizing services of less complexity and focusing on the ones of higher technology ^(2, 3).

This proposal of health services organization in the Unified Health System (SUS) aims to ensure comprehensive care to the users, without establishing a hierarchy among the services, once they should solve the health problems of the patient according to the resources available. The more complex cases, when not resolved in primary care should then be referred to the services of medium and high complexity ⁽⁴⁾.

Historically, in Brazil, there has been the construction of a hospital-centered model of organization, with the overvaluation of the hospital unit as a place to produce knowledge and practice of health actions. Added to this, the care of seriously ill people provides greater visibility to these institutions, including in the users' perspective.

PHC must be responsible for more than 85% of health problems, for it is the place that offers high

complexity technologies related to changes in behavior and lifestyles, whereas the secondary and tertiary care offer higher technologies, but not more complex ⁽⁵⁾.

By analyzing the demand for health services, we verify that the urgency and emergency care absorbs problems whose specificity can often be treated only in hospital care. Also, the poor access to outpatient specialized care can make the emergency service the main access to medical specialties and technologies ⁽¹⁾.

The population growth and aging with consequent increase in the number of illnesses, alongside with the simultaneous improvement of health care resources and the development of new technologies and resources, contributed to the exaggerated increase in health costs, i.e. the change in the population demographic profile, with increasing number of elderly represents a higher demand for emergency care ⁽⁶⁾.

In health, we live the epidemic of chronic non-communicable diseases (CNCD), a problem that started in developed countries, but that currently affects the poor and developing ones, which is worsened because, in these countries, infectious diseases are still an aggravating for health services. In epidemiological scenario, we emphasize that cardiovascular diseases affect a significant portion of the population, frequently leading to hospitalization, having direct impact on the SUS health care organization and on the costs of care provided, representing an important share of nursing work ⁽⁷⁾.

Thus, demographic and epidemiological aspects, with the presence of comorbidities and acute exacerbation of chronic diseases represent an important share of assistance, impacting emergency services, especially in the clinical area.

The increased demand for urgency and emergency services can lead to disorganization of the unit, poor quality of care and unnecessary costs, resulting in irrational use of available resources ⁽⁸⁾.

For the management of these units, besides the number of assistances, is important to characterize them. Establishing the demographic and epidemiological profile is an important tool in the service organization and in the nursing work.

Currently there is a growing use of epidemiological methods and principles by health institutions aiming to improve health conditions, provide relief from suffering and restore the functional capacity of the individual, thus achieving the best results possible. Descriptive studies allow us to identify the spatial and temporal distribution of the disease beyond the characteristics presented by individuals (gender, age, socioeconomic status, among others), which is essential to the planning and management of health services⁽⁹⁾.

The nurse is the professional responsible for the unit organization and planning of patient care, and it is important for the execution of their work to know and use tools that allow better understanding of the profile of users who attend the unit in which they work.

The nursing work process is composed of two complementary dimensions: management and care. The care is characterized by bedside activities, related to direct patient care; management comprises the actions that enable the work process transformation, organizing and coordinating activities aiming to meet the needs from care. These two dimensions are interdependent, the care and management should be jointly developed in order to achieve a quality care⁽¹⁰⁾.

The nurse performance in the emergency room requires specificities and coordination indispensable for the management of care for patients with complex needs, requiring scientific improvement, technological use and humanization extended to relatives due to the unexpected impact of a situation that endangers the life of a loved one.

In this context, knowing the profile of emergency care allows us to organize the sector according to the

most frequent cases, being possible to direct the workers' qualifications, providing the unit with appropriate human and material resources and facilitate the coordination with other health services.

In this perspective, this study was developed aiming to characterize the profile of the emergency clinical care according to demographic and epidemiological variables and length of stay in a teaching hospital in Ribeirão Preto-SP, Brazil, in 2007.

METHODS

This is a descriptive, exploratory and documentary research that used official data. The study was carried out in a public teaching hospital that had two distinct units: Emergency Unit and Campus Unit, each with its own physical infrastructure and human and materials resources to meet the specifics of their respective demands.

The Emergency Unit has 151 inpatient beds and 47 support beds (stretchers); distributed in four floors in different sectors such as Intensive Care Units (ICUs), inpatient cardiology unit and wards (medical, surgical, pediatric, burned unit, psychiatry, orthopedics, among others).

In this research, the field of study was the sector of clinical emergency care in this hospital's Emergency Unit, which had 14 stretchers for clinical observation and three offices.

In this study we considered all services related to clinical emergency care from January 1 to December 31, 2007, totaling 5,285 cases. We chose clinical emergencies not only due to the lack of studies on this subject, but also due to the assistance demand.

As inclusion criteria we used: care to adult patients, in clinical care sector, during the study period and those who remained under observation. Excluding the care provided in other specialties such as pediatrics, obstetrics, ophthalmology and those who did not remained hospitalized in the emergency unit.

Data were obtained through the Hospital Management and Information System, a program designed by the Data Processing Company of São Paulo State (PRODESP) for the management of hospital information. It is worth mentioning that this is an official database, which guarantees the reliability of data available. The variables of interest in this study were: gender, age, education level, length of stay in the unit and ICD-10 discharge diagnosis. The data of interest were organized by the researchers in a spreadsheet using Microsoft Excel, allowing the registration of the variables, which were later moved to the Epi-Info 3.5.1, and then we performed statistical analysis of descriptive data presented as frequency and percentage.

The discussion was carried out based on the theoretical framework adopted, that is, the reorganization within the local health system, the urgency and emergency clinical care in SUS perspective.

The study was carried out in order to ensure the compliance of the legal precepts from Resolution No. 196/96 on research involving human subjects; it was submitted to the Research Ethics Committee (REC) from the study Hospital, through the Clinical Research Unit, having been approved under protocol No. 3863/2008. The REC is registered in the National Committee for Research Ethics (CONEP) under number 0352.0.004.004-08.

RESULTS

There were a total of 5,285 cases in internal medicine in the Emergency Unit of the study hospital in 2007. The results are presented in tables, considering the quantitative descriptive variables. Table 1 shows the demographic data and length of stay in the unit after the first visit.

Table 1 - Distribution of emergency clinical care in a teaching hospital, according to gender, age, education and length of stay, in 2007. Ribeirão Preto, SP, Brazil, 2007

Variables	N	%
Gender		
Female	2,427	45.9
Male	2,858	54.1
Total	5,285	100
Age group (years)		
18 20	122	2.30
20 30	787	14.89
30 40	660	12.48
40 50	901	17.04
50 60	851	16.10
60 70	743	14.05
70 80	790	14.94
≥80	430	8.13
No data	1	0.01
Total	5,285	100 (99.94)
Education level		
None	500	9.46
Elementary education	3,908	73.94
High school	457	8.64
Higher education	297	5.61
Unknown	47	0.89
No data	76	1.43
Total	5,285	100 (99.97)
Length of stay (hours)		
< 6	2,105	39.8
6 12	871	16.5
12 18	466	8.8
18 24	352	6.7
≥ 24	1,448	27.4
Unspecified	43	0.8
Total	5,285	100

Source: SIHG HCFMRP-USP, 2008

The results show that 54.1% of assistances were performed in male patients, 70.1% in patients aged over 40 years. Individuals aged 80 and older represent 8.1% of cases, these are patients whose age may bring comorbidities, thus requiring special care. The variable level of education showed that 73.9% of patients

assisted in the unit had elementary education, however it was not possible to identify whether it was complete or not, and the second highest percentile was of patients with no education 9.5%. The length of stay in the unit in 39.8% of cases was less than 6 hours and in 27.4% was at least 24 hours or longer.

Table 2 – Main medical diagnostics identified in the clinical care consultation at the hospital studied, according to the terminology proposed by ICD-10. Ribeirão Preto, SP, Brazil, 2007

Main medical diagnosis (ICD-10)	N	%
I10 – Essential (primary) hypertension	264	4.9
I67.8 – Other specified cerebrovascular diseases	188	3.6
I20.0 – Unstable angina	93	1.8
Other System I diagnoses	663	12.6
R69 – Unknown and unspecified causes of morbidity	251	4.7
R07.4 – Chest pain, unspecified	47	0.9
R51 – Headache	47	0.9
Other System R diagnoses	404	7.6
J18.9 – Pneumonia, unspecified	112	2.1
J15.9 – Bacterial pneumonia, unspecified	107	2.0
J44.1 – Chronic obstructive pulmonary disease with acute exacerbation, unspecified	47	0.9
Other System J diagnoses	204	3.9
Z76.0 – Issue of repeat prescription	95	1.8
Z01.8 – Other specified special examinations	75	1.4
Z09.8 – Follow-up examination after other treatment for other conditions	53	1.0
Other System Z diagnoses	162	3.1
G40.1 – Localization-related (focal) (partial) symptomatic epilepsy and epileptic syndromes with simple partial seizures	49	0.9
G43.9 – Migraine, unspecified	25	0.5
System G diagnoses	257	4.9
System S diagnoses	330	6.3
System T diagnoses	278	5.3
System B diagnoses	232	4.4
System D diagnoses	182	3.4
System N diagnoses	157	3.0
System A diagnoses	117	2.1
Other systems (C, E, F, H, K, L, M, O, P, Q, V, W, X, Y)	882	16.7
Unspecified ICD	06	0.1
Total	5,285	100.0

Source: SIHG HCFMRP-USP, 2008

The most frequent medical discharge diagnoses, according to ICD-10, were in Chapter IX – System I – Diseases of the Circulatory System with 22.9%, in which the main disease of this system was the Essential (primary) hypertension with 4.9% of cases, other cerebrovascular diseases specified represented 3.6% of cases.

The second most frequent cause of assistances were diseases listed in Chapter XVIII – System R – Symptoms, signs and abnormal clinical and laboratory findings, not elsewhere classified with 13.4% of cases.

These are clinical conditions still in diagnostic phase, which left the unit with the need for continuity of care or other health services, so it is not a pathology diagnosis, rather symptomatology. And the Chapter X – System J – Diseases of the respiratory system appeared as the third most frequent cause of clinical emergency care, with 2.1% of Pneumonia, unspecified and 2.0% of Bacterial pneumonia, unspecified.

DISCUSSION

Unpredictability is a determining characteristic in urgency and emergency services that can be minimized by using the results of studies that allow us to identify the population profile and the most common morbidities in service. Knowing these specific aspects improves the planning and organization of the unit and the nursing work, reflecting in the quality of care provided to the user.

In this study we identified the predominance of assistance to male patients, a result that is different from other studies in which females were responsible for most cases^(11,12). Considering that these studies were conducted in different regions of Brazil, where each one presents different demographic characteristics impacting the characterization of assistance profile in each study.

As regards the age group, most cases in the unit occurred in people aged over 40 years, with especial reference to the number of cases in patients aged over 60 years, which corresponds to 37.1% of cases.

The aging process is directly reflected on the demand for health services, to the extent that the population over 65 years has a four times greater demand for hospitalization compared to the average population⁽¹³⁾. A study carried out in an urgency and emergency service in the South Region identified that the hospitalization average after consultation of people aged 65 and older was 18.6%, whereas among younger people was only 4.1%⁽¹⁴⁾.

The low education level, up to four years of study, presented by users of urgency and emergency care services in teaching hospitals appears in the literature related to the low purchasing power of the population that uses this service^(14,15).

Socioeconomic and gender differences are determined by exposure to risk factors, which puts marginalized populations at a significant disadvantage, leading to a late diagnosis of the disease, when they are

already needing healthcare to solve such acute situation⁽⁷⁾. The emergency service is in charge of dealing with acute problems, therefore it is expected that the population has less access or does not have information on which to base their health care, thus representing a greater number of visits.

The diagnoses obtained correspond to international statistics on the world epidemic profile that presents as the leading causes of death: diseases of the circulatory system, malignant neoplasms, chronic respiratory diseases and diabetes, along with external causes such as accidents, homicides and other forms of violence⁽¹⁶⁾.

Diseases of the circulatory system represent approximately 20% of all deaths in the Americas, with especial reference for ischemic heart disease and cerebrovascular disease as the most important. Essential (primary) hypertension also has a huge impact on the health situation of the population in the Americas, reaching between 8% and 30% of deaths, besides being a risk factor for developing heart diseases and stroke⁽¹⁷⁾.

Several studies in the literature report the increased incidence of cardiovascular disease in health services and the increasing number of hospitalizations resulting from this process^(3,15,18).

However, the association between aging and cardiovascular diseases in urgency and emergency services appears in only two studies, in different regions of Brazil^(14,16).

Therefore, this study provides important data, identifying the incidence of cardiovascular diseases in a municipality in the interior of São Paulo State, reference in high-complexity care. Moreover, we bring out the hypertension as an important issue, since this disease can be diagnosed, controlled and monitored from primary care.

Diseases of the System R – Symptoms, signs and abnormal clinical and laboratory findings, not elsewhere

classified, comprise a series of nonspecific disorders, being the second leading cause of assistance in the unit. This fact may be related to the actual characteristics of urgency and emergency care services, characterized by immediate and provisory assistance, which ends up causing a large number of poorly defined diagnoses⁽¹⁴⁾.

Diseases of the respiratory system appeared as the third cause of cases, with especial reference to diagnosis of pneumonia. It is known that the elderly population is more susceptible to respiratory infections such as pneumonia, thus this diagnosis may be the result from the number of elderly patients in this unit.

The conditions of clinical emergency care, as well as the profile of patients assisted are reflected in the patient's length of stay in the service. The percentage of cases with length of stay less than six hours may be due to inappropriate referrals to the unit. Whereas staying for more than 24 hours can represent the difficulty for referrals of patients to another unit after initial treatment.

The lack of hospitalization beds is a common situation in many hospitals, being necessary to keep the patients in the emergency unit for more than 24 hours, causing a high number of hospitalizations, a situation that needs to be fixed in order to provide quality care for the patients⁽¹⁹⁾.

In practice, this condition is increasingly common, in which the users are accommodated on stretchers, compromising the quality of service and assistance offered. The need for hospitalization beds in specific units is quite common, for example, for beds in Intensive Care Units (ICUs).

The length of stay in emergency units found by other authors was on average 4 hours and 42 minutes, depending on the care specialty⁽¹⁶⁾.

Therefore, it is necessary to carry out studies in other urgency and emergency services regarding the length of stay in these units, since we had difficulty finding studies on this subject. The studies that dealt on

the subject presented the length of stay according to specific diseases and not as average length of assistance in urgency and emergency rooms^(20,21).

LIMITATIONS OF THE STUDY

In this study, it was not possible to classify the assistances according to complexity, making it impossible to relate length of stay with the diagnosis. Despite this limitation, we present important information to the identification of a new epidemiological profile, besides measuring the average length of stay in urgency and emergency care services of a high-complexity hospital, we also evidence the significant number of elderly patients assisted in clinical emergency services, a situation that was not found in the scientific literature.

CONCLUSION

In recent years there is a growing demand for urgency and emergency care services in hospital; however, the increase in the structuring of these services is still insufficient to meet the whole demand.

The change in the socio-demographic and age profile of the population, with increasing life expectancy, besides the change in morbidity and mortality profile, previously characterized by infectious diseases and currently with the constant increase of chronic diseases, which develop throughout life and that, besides compromising the quality of life of individuals, increase the demand for health services. Particularly, in Brazil, we understand that such situation affects the urgency and emergency care services, making necessary organizational and management changes of these units facing this new health reality.

Data analysis in this study allowed us to characterize the clinical profile of the urgency and emergency care services in the hospital studied, identifying the predominance of male patients with elementary education, aged from 18 to 59 years, having as the main cause of assistance the diseases of the

circulatory system, and that stayed in the unit for less than 6 hours. These data allow us to identify the profile of users assisted, helping the development of strategies for the work organization in the unit.

Aging leads to the development of chronic non-communicable diseases, modifying the epidemiological profile of patients who use health services. It is worth mentioning that even though this process happens in all services, the urgency and emergency units are noted for being characterized as immediate and temporary care, i.e. not having the structure for long term stay.

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