

Epidemiological Aspect of Pathologies That Led to Hospitalization at the Military Medico-Surgical Center of Bamako

Sanogo A^{1*}, Maiga AS², Berthe BB¹, Diaby LM¹, N'diaye M¹, Magassouba SS¹, Bouare I¹, Diallo H¹, B, Kane AST¹, Sylla O¹, Cisse MS¹, Traore A², Tolo N², Saliou M³, Ouologuem M¹

¹Bamako's Military Medico-Surgical Center, Bamako, Mali

²Military Polyclinic of Kati, Bamako, Mali

³Teaching Hospital of Gabriel Toure, Bamako, Mali a

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*Corresponding author: Dr Abasse Sanogo

Bamako's Military Medico-Surgical Center, Bamako, Mali

Abstract

Original Research Article

Military health plays a crucial role in ensuring the well-being of soldiers, their families, and the broader population. It encompasses various aspects of healthcare and is an integral part of national health systems. This study aimed to provide a descriptive cross-sectional analysis, spanning one year, by examining hospitalization records, reference sheets, and discharge bulletins. Methods: To gather the necessary data, a comprehensive collection sheet was created, encompassing sociodemographic variables, diagnosis, treatment, and patient outcomes. The data were entered and analyzed using Microsoft Word 2016 and IBM SPSS Statistics software. Results: Among the study participants, males accounted for the majority at 60%, with the age group of 61 and over being the most represented. Internal medicine and neurology were the dominant specialties, respectively comprising 35.8% and 27% of cases. Encouragingly, a significant 83.1% of patients showed improvement and were discharged, while a 6% fatality rate was observed. Furthermore, noteworthy advancements were made in the technical infrastructure, including the establishment of a dialysis unit and an operating theatre.

Keywords: Review, healthcare activity, medical, hospitalization.

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INTRODUCTION

People's access to health care has always been one of the major concerns of authorities. The role of military service corps is to support the soldier and his family but also the population in general. The medico-surgical center is a training center encompassing almost all medical and surgical specialties [1]. It is a multidisciplinary service welcoming patient with various conditions such as infectious and parasitic pathologies, cardiovascular pathologies, endocrine and metabolic pathologies and systemic pathologies.

The hospitalization unit of the military medical-surgical center of Bamako receives all military and civilian patients with a high frequency of medical pathologies [3]. The purpose of evaluating the care activities of a health center is to enhance the quality of care by offering an assessment of its practices to ensure improvement in the delivery of services [2]. The aim of this study was to investigate the occurrence rate of medical pathologies among patients hospitalized at the Military Medical and Surgical Center of Bamako.

METHODOLOGY

Type of study: This study was a cross-sectional descriptive study.

Study framework: The study was conducted in the hospitalization department of the military Medical and Surgical Center of Bamako (CMCA).

Study period: The study was conducted over a one-year period, specifically from January 1 to December 31, 2022.

Study population: The study included patients who were hospitalized during the study period at the Military Medico-Surgical Center of Bamako.

Sampling

Inclusion criteria: All hospitalized patients receiving care for a medico-surgical pathology at the center during the study period were included.

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Non-inclusion criteria: Patients who were not hospitalized, those with incomplete records, or those who refused to participate were not included in the study.

Parameters studied: The variables were collected individually and grouped into different categories, including socio-demographic characteristics of the patients, clinical aspects, and therapeutic aspects.

Course of the study: The sampling for the study was selected from various sources, such as admission registers, observation books, external consultation sheets, operative report registers, and medical records.

Data analysis: The data were entered and analyzed using Epi Info 7.2.2.6 and Excel 2016 software.

Ethical considerations: We obtained authorization from the Director of the Center and the president of the scientific council of CMCA. We declare no conflicts of interest.

RESULTS

In total we retained 148 files over 3 months

1- Sociodemographic characteristic

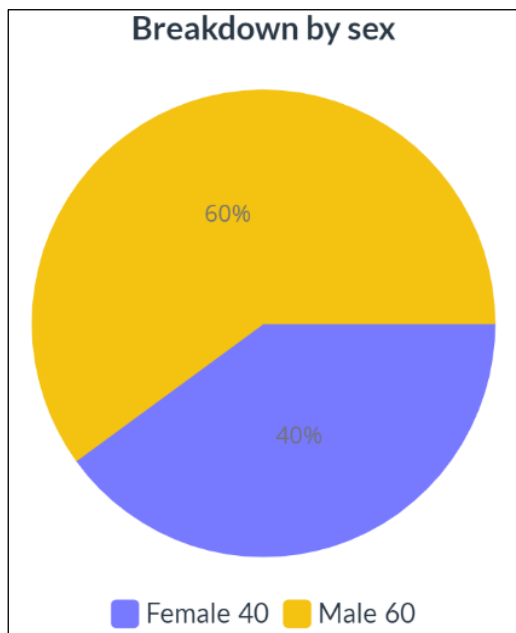


Figure 1: Breakdown by sex

In terms of hospitalizations, the male sex was predominant, accounting for 60% of the total cases.

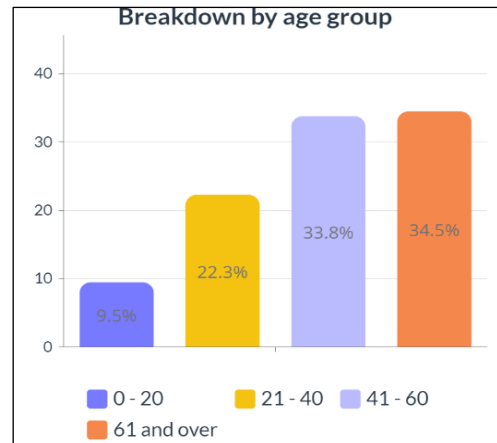


Figure 2: Breakdown by age group

The age group over 60 years was found to be predominant in the study population.

2- Clinical aspects

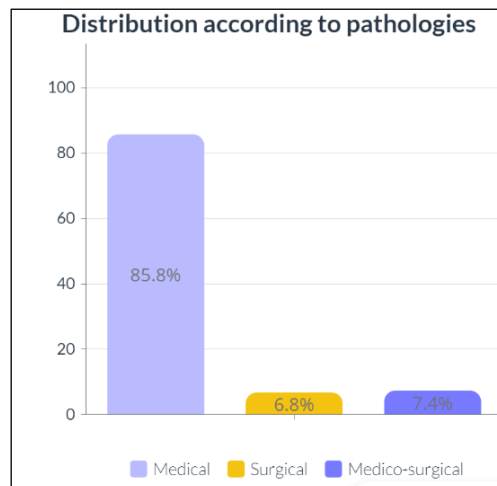


Figure 3: Distribution of patients according to pathologies

Medical pathologies accounted for the majority of hospitalizations, representing 85.8% of the total cases.

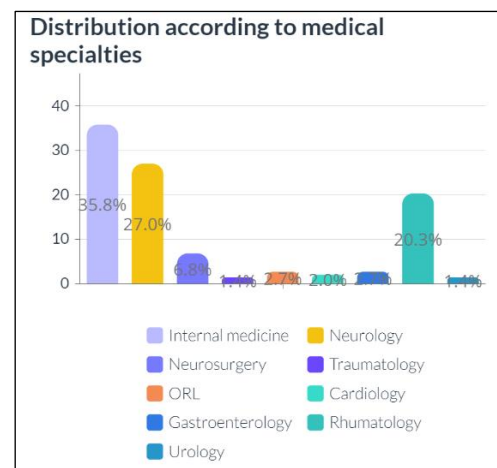


Figure 4: Distribution according to medical specialties

Among the medical pathologies, internal medicine accounted for the highest proportion of hospitalizations, with 35.8% of the total cases. Neurology followed closely, with 27% of the patients being hospitalized for neurological conditions.

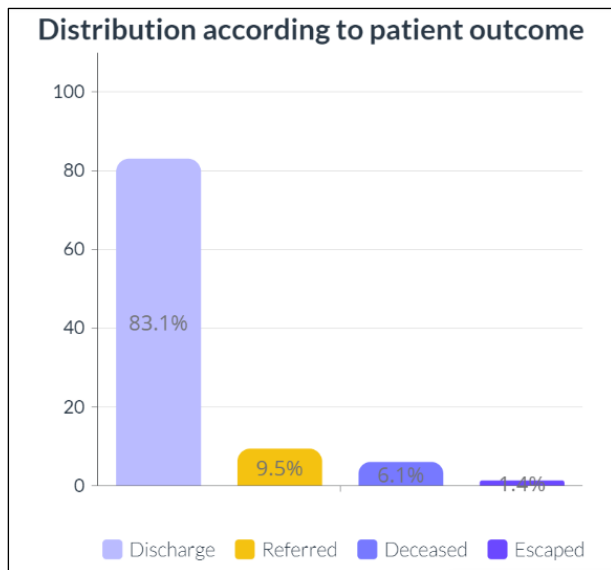


Figure 5: Distribution according to patient outcome

A significant majority of patients, specifically 83.1% of them, showed improvement and were discharged from the hospital.

DISCUSSION

The original observation focused on a Medico-surgical center that has a larger capacity compared to a reference center, and it operates with a continuous structuring dynamic. Since its establishment, the Malian Medical Service Corps has a medico-surgical center that also serves as an instructional center.

Socio-demographic characteristics

According to gender

During the study period, a higher proportion of men (60%) were hospitalized compared to women (40%). This finding is consistent with the study conducted by Kane *et al.* [3], which reported a ratio of 55% women to 45% men. However, it differs from the study conducted by Aminata M [2], where women constituted 51% of the study population. It is important to note that Aminata M's study was conducted in a single civilian setting, specifically an agro-pastoral environment.

According to age group

In this study, the age group over 60 years old accounted for the highest proportion, representing 34.5% of the hospitalized patients. This finding is similar to the result obtained by Aminata Simpara [2], who reported a percentage of 35% but in a different age range of 25 to 45 years old. The difference in age groups can be attributed to variations in sample size and

the specific characteristics of the populations being studied.

According to occupations

In our study, civilian patients accounted for 66.9% of the total, while military patients represented 33.1%. This finding differs from the study conducted by Kane *et al.* [3], where the military population constituted 19.61%. The difference in results can be attributed to variations in sample size and the specific characteristics of the study populations being examined.

Clinical aspects

According to the pathologies

More than two-thirds of the hospitalized patients (83%) were diagnosed with medical pathologies, while 6.8% had surgical pathologies, and 7.4% had medico-surgical pathologies. This finding is similar to the study conducted by Aminata Simpara [2], where the majority of patients (45.45%) were classified under infectious and parasitic diseases, followed by diseases of the digestive tract with 9.8%. These results highlight the prevalence of medical conditions among the hospitalized patients in both studies.

Depending on hospitalization times

The average length of hospitalization was fourteen days, ranging from a minimum of two days to a maximum of one month.

According to hospitalizations

Among the hospitalized patients, 83% showed satisfactory improvement and were discharged, while 6.1% unfortunately passed away. Additionally, 9.9% of the patients had to be referred to other hospitals within the country. This situation arises from the fact that the resuscitation room is not fully operational, necessitating the need to refer patients to other facilities for specialized care.

CONCLUSION

The Military Medical and Surgical Center of Bamako, operated by the Medical Service Corps of the Armed Forces of Mali, demonstrates its capacity to contribute to the country's healthcare system and provide medical support to the Malian population. This capability is crucial for the success of their missions and aligns with the institution's motto.

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