Scientific Research Publishing

Open Journal of Internal Medicine, 2026, 16(1), 1-8
https://www.scirp.org/journal/ojim
ISSN Online: 2162-5980
ISSN Print: 2162-5972

Future of the Elderly Person Hospitalized in the Medicine Department of the Sylvanus Olympio University Hospital in Lomé

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How to cite this paper: Djagadou, K.A., Tchala, A.-B., Nsoukpo, O., Segniagbeto, K., Agnegue, E.S.G. and Djibril, M.A. (2026) Future of the Elderly Person Hospitalized in the Medicine Department of the Sylvanus Olympio University Hospital in Lomé. *Open Journal of Internal Medicine*, **16**, 1-8.
https://doi.org/10.4236/ojim.2026.161001

Received: December 6, 2025
Accepted: December 27, 2025
Published: December 30, 2025

Abstract

Introduction: To describe the evolving characteristics of the pathology of elderly patients hospitalized in internal medicine. **Methodology:** This was a retrospective study conducted in the internal medicine department of the Sylvanus Olympio University Hospital Center in Lomé, involving patients aged 65 years or older who were hospitalized between January 1, 2018, and December 31, 2020. **Results:** Four hundred and thirty-three patients aged 65 years or older were hospitalized out of a total of 3026 patients, representing a frequency of 14.31%. The mean age was 74.42 years (range 65 - 115 years), with a male-to-female ratio of 1.03. Comorbidities were found in 81.52% of patients. The outcome was marked by death in 32.79% of cases and loss of autonomy in 47.71% of patients declared recovered. The main causes of death were neurological, urinary, digestive, infectious, and cardiovascular. **Conclusion:** Hospitalization of elderly people is associated with high mortality and significant functional loss.

Keywords

Elderly Person, Hospitalization, Mortality, Loss of Autonomy

1. Introduction

The definition of an older person refers to a state of functional incapacity experienced subjectively or objectively, according to the individuals concerned [1] [2]. Today, the world's population has experienced unprecedented aging due to the overall decline in mortality resulting from increasingly effective health policies and a decrease in fertility [3]. This aging is already well established in developed

countries, where older people represent approximately one-fifth of the population. Currently, it is in developing countries that this aging is accelerating most rapidly, at a much faster rate than that experienced by developed countries in recent decades [3]-[5]. For example, it is estimated that by 2050, approximately 80% of older people will live in low- or middle-income countries [3] [4]. In Togo, the older population has been steadily increasing since 1981 [6] [7].

It is estimated that the elderly population will increase by more than 80% in 20 years, while the general population will only increase by 58% [6]. However, this increased life expectancy is accompanied by a rise in health problems due to a greater frequency of chronic diseases and a higher risk of loss of independence with age [8]. The challenge today is therefore to ensure the maintenance of functional abilities throughout these additional years of life. In general, little research has been conducted on older people in Togo and Africa, particularly regarding their health. This is what motivated this study, the overall objective of which was to describe the outcomes of elderly patients hospitalized in internal medicine at the Sylvanus Olympio University Hospital in Lomé. The specific objectives were to describe the sociodemographic characteristics, identify the different pathologies encountered, and describe the evolutionary characteristics of elderly patients hospitalized in internal medicine.

2. Patients and Methods

2.1. Study Setting

The study was conducted in the Internal Medicine Department of the Sylvanus Olympio University Hospital Center in Lomé.

2.2. Study Type and Period

This was a retrospective descriptive study covering the period from January 1, 2018, to December 31, 2020.

2.3. Sampling

2.3.1. Study Population

The study population consisted of patients aged 65 years or older who were hospitalized in the Internal Medicine Department of the Sylvanus Olympio University Hospital Center between January 1, 2018, and December 31, 2020.

2.3.2. Inclusion Criteria

All patients hospitalized in the Internal Medicine Department of the Sylvanus Olympio University Hospital Center between January 1, 2018, and December 31, 2020, who were aged 65 years or older were included in the study.

2.3.3. Exclusion Criteria

Patients under the age of 65 years or whose age is unknown were not included in the study.

2.4. Data Collection

We conducted a literature review by examining hospitalization records and patient medical files. The collected data were recorded on a form and a linear list developed for this study. We collected sociodemographic data (age, sex, socioeconomic status) and clinical data (personal history, diagnoses, length of hospital stay, and outcome).

2.5. Data Processing

We used Microsoft Word for text entry and Microsoft Excel for compilation. For analysis, we used Epi Info version 7.2.1.0. The results are presented in tables and graphs with values representing absolute and relative frequencies, means, ratios, and proportions.

3. Results

3.1. Sociodemographic Characteristics

3.1.1. Frequency

During the study period, 3,026 patients were hospitalized in the department, of whom 433 were 65 years of age or older, representing a frequency of 14.31%.

3.1.2. Age and Sex of Patients

The mean age of the patients was 74.43 ± 8.54 years, with a range of 65 to 115 years.

The male-to-female ratio was 1.03.

3.2. Diagnostic Aspects

3.2.1. Medical History

Elderly patients with a medical history represented 81.52% of cases, with an average of 1.36 medical histories per patient. The most common medical history was hypertension in 44.57% of cases and diabetes in 26.64% of cases (Table 1).

Table 1. Distribution of patients according to their medical histories.

	Number of cases	Frequency (%)
High blood pressure	193	44.57
Diabetes	118	26.64
Alcoholism	38	8.78
Stroke	37	8.55
Neoplasia	14	3.23
Chronic kidney disease	13	3.00
HIV	11	2.54
Smoking	10	2.31
Other	57	13.16

3.2.2. Diagnoses

Neurological pathology was found in 28.40% of cases, and endocrine and metabolic pathology in 24.94% of cases (Table 2).

Table 2. Distribution of patients according to the type of pathology.

	Number	Frequency (%)
Neurological disorders	123	28.40
Endocrine and metabolic disorders	108	24.94
Urinary disorders	85	19.63
Digestive disorders	75	17.32
Infectious disorders	55	12.70
Respiratory disorders	50	11.55
Cardiovascular disorders	38	8.78
Other	50	11.55
Unknown	15	3.46

3.3. Evolutionary Aspects

3.3.1. Length of Hospital Stay

The average length of hospital stay was 10.21 ± 7.56 days, with a range from 1 to 41 days.

3.3.2. Hospital Outcome

Death during hospitalization was recorded in 32.79% of cases (Figure 1).

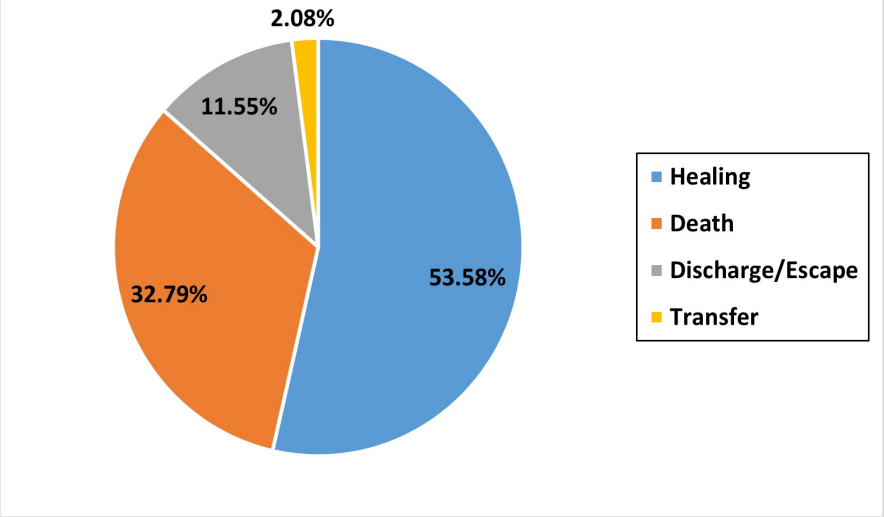

Figure 1. Distribution of elderly patients according to hospitalization outcomes.

3.3.3. Mortality

Death was due to neurological pathology in 44.37% of cases and to urinary pathology in 23.24% of cases (Table 3).

Table 3. Distribution of deaths according to cause.

	Death	%
Neurological disorders	63	44.37
Urinary disorders	33	23.24
Digestive disorders	21	14.79
Infectious disorders	20	14.08
Hematological disorders	18	12.68
Cardiovascular disorders	15	10.56
Endocrine/metabolic disorders	15	10.56

3.3.4. Functional Status at Discharge

Among the patients declared cured at the end of hospitalization, 47.71% presented a loss of autonomy according to the Katz scale (Figure 2).

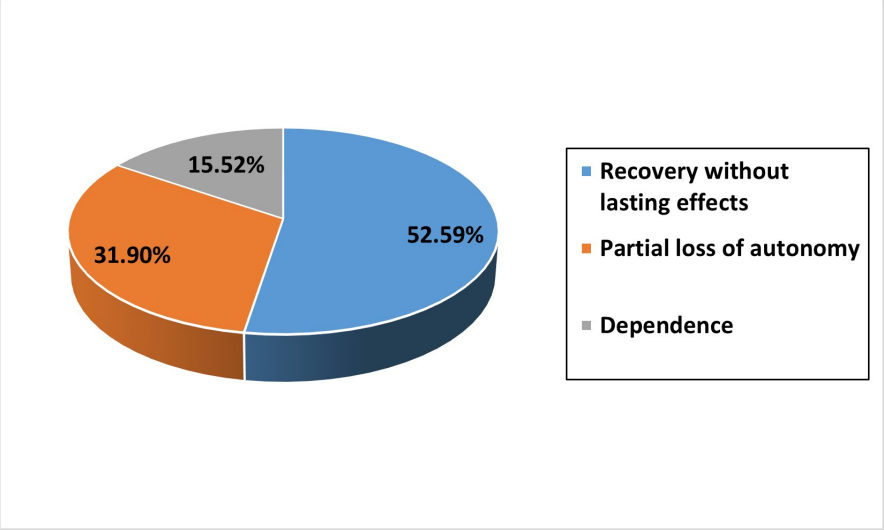

Figure 2. Distribution of patients according to functional status at discharge.

4. Discussion

4.1. Sociodemographic Characteristics

The proportion of elderly patients hospitalized in internal medicine was 14.31%. This appears high in a country where the proportion of people aged 65 and over in the general population is 3.53% [9]; this reflects higher morbidity among seniors and can be explained by the frequency of chronic diseases with advancing age, as well as the frailty exacerbated by the progressive decline of most functions with age.

4.2. Diagnostic Aspects

Regarding medical history, 81.52% of patients had a history of illness upon admission, predominantly hypertension (44.57%) and diabetes (26.64%), with an

average of 1.36 pre-existing conditions per patient. In the series by Sanjurjo *et al.* [10] in Spain, an average of 3.5 pre-existing conditions per patient was noted, and the history was also dominated by hypertension (62.5%) and diabetes (55.1%). Among the conditions found in patients, neurological pathology was the most frequent (28.40%), followed by endocrine and metabolic pathology (24.94% of cases). In the data reported by Sanjurjo *et al.* [10] in Spain and by Mazière *et al.* [11] in France, the predominant pathologies were respiratory (33% and 14.7% respectively) and cardiovascular (21% and 22.8% respectively).

4.3. Outcomes

Patient outcomes were marked by death in 32.79% of cases and loss of autonomy in 47.71% of patients declared recovered. Hospitalization of elderly individuals often exacerbates their frailty by further impairing their autonomy. Covinsky *et al.* [12], in a study conducted in the United States on subjects aged 70 and over, reported a deterioration in functional status in 35% of patients upon hospital discharge. Geriatric care for these elderly patients can help reduce the loss of autonomy upon hospital discharge, as demonstrated by Cohen *et al.* [13] in a study conducted in the United States. The benefit is greater when geriatric care is provided upstream for preventive purposes in order to reduce the number of hospitalizations, especially emergency hospitalizations, which are associated with a higher rate of functional decline [14].

The main pathologies leading to death were neurological (44.36%), urinary (23.24%), and digestive (14.79%). Cortés-Sierra *et al.* [15] in Colombia reported a mortality rate of 8.3% among adult patients hospitalized in an internal medicine ward. The high mortality rate in our series appears to reflect a higher mortality rate among the elderly than in the general adult population, which may be explained by the more or less pronounced functional impairments and the multiple comorbidities often experienced by older adults. This rate also appears to be higher than that reported by Sanjurjo *et al.* [16] in Spain (16.6%) among seniors hospitalized in an internal medicine ward. Insufficient technical resources in our setting, coupled with delays in diagnosis and treatment, and patients' difficulties in coping with healthcare expenses, may be contributing factors to this mortality.

The absence of geriatric care can also contribute to a higher mortality rate: studies have shown that good geriatric care, especially for preventive purposes, helps reduce hospitalizations and thus the number of deaths among older adults [15] [17]. According to the series by Sanjurjo *et al.* [16], the main causes of death were respiratory tract infections (43.8%) and heart failure (13.3%). Rossetto *et al.* [17] also reported that the main causes of death were cardiac (10.8%) and infectious pulmonary diseases (6.9%).

4.4. Limits and Strengths of the Study

The main limitation of this study is its single-center, retrospective design. This explains the lack of certain data. However, the topic is relevant, and the results

will help prevent certain comorbidities and limit the loss of autonomy in hospitalized patients.

5. Conclusion

This study has shown that morbidity is significant among older adults. Hospitalization in this age group is associated with high mortality and a substantial functional decline. The lack of a geriatric care pathway, the underdeveloped technical infrastructure, and the low socioeconomic status of the population are factors limiting effective patient care. All of these elements, combined with the continuous growth of the senior population, suggest a preventive approach to age-related diseases, characterized by systematic screening and early management of frailty to prevent hospitalizations by the early detection of signs, such as weight loss, fatigue, slowness, sedentary lifestyle, and difficulties with daily activities.

Conflicts of Interest

The authors declare no conflicts of interest regarding the publication of this paper.

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