

**Short Communication**

## ANALYSIS OF GERIATRIC POPULATION VISITING EMERGENCY DEPARTMENT: A PROSPECTIVE STUDY

**JAHNU BHOJ NAGAL\*, BHUVNESHWARI JAITAWAT, TEJPAL YADAV, KAVITA JAIN**

Department of Emergency Medicine, Jawaharlal Nehru Medical College, Ajmer, Rajasthan, India

\*Corresponding author: Jahnu Bhoj Nagal; \*Email: [nagaljahnu@gmail.com](mailto:nagaljahnu@gmail.com)

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**ABSTRACT**

As the global increase in life expectancy, the proportion of elderly individuals in the general population is rising. Geriatric patients constitute a significant proportion of emergency department (ED) visits. The geriatric population is increasingly utilizing ED services due to age-related comorbidities and acute medical conditions. Tailored protocols and specialized care are essential to address their complex health needs. This study aims to determine the prevalence and spectrum of diseases among the geriatric population visiting ED. A prospective study was conducted over one year at tertiary level centre, analyzing the diagnostic distribution based on the international classification of disease Tenth Revision (ICD-10 classifications) in geriatric patients aged 60 y and above.

**Keywords:** Emergency department (ED), International classification of disease tenth revision ICD-10, Geriatric population.

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**INTRODUCTION**

With the global increase in life expectancy, the proportion of elderly individuals in the general population is rising. Consequently, emergency departments (EDs) are experiencing a growing number of visits by geriatric patients. [1] These patients often present with multiple comorbidities and atypical disease presentations, posing a challenge for emergency care providers. [2] This study aims to analyze the prevalence and characteristics of geriatric patients attending the ED. Understanding the prevalence and diagnostic spectrum of this population is essential for planning and resource allocation.

**MATERIALS AND METHODS**

This prospective observational study was carried out in the Emergency Department of Jawaharlal Nehru Medical College,

Ajmer, Rajasthan, India, over a period of one year from January 2024 to December 2024. All patients aged 60 y and above presenting to the ED during this period were included. Data were collected using a structured performa and included demographic details, presenting symptoms, diagnoses. Diagnoses were classified according to International Classification of disease tenth revision (ICD-10 classifications). [3] The number of patients and their percentage representation were analyzed.

**RESULTS**

Total 178840 patients visits ED during one one-year of study period. Out of which 53653 were geriatric patients aged 60 y or above that constitute around 30% of total patients load of ED.

**Table 1: ED diagnosis of geriatric patients according to ICD-10 codes**

ED diagnosis of elderly patients according to ICD-10 codes	Number of patients	Percentage of geriatric patients visiting ED
Diseases of the circulatory system	15534	29
Diseases of the respiratory system	10714	20
Injury (accidental)	6428	12
Diseases of the genitourinary system	4950	9.2
Diseases of the digestive system	4285	08
Endocrine and metabolic diseases	2760	5.2
Diseases of the skin and subcutaneous tissue	2655	4.9
Symptoms, signs, and abnormal clinic and laboratory findings, not classified elsewhere	1953	3.6
Diseases of the nervous system	1697	3.1
Infectious diseases	1606	03
Diseases of the blood	1071	02
Total geriatric patients visiting ED/total patients visiting ED	53653/178840	30% of total ED visit

**Table 2: Showing analysis of diseases of the circulatory system**

Diseases of the circulatory system subdivision	Number of patients	Percentage of diseases of the circulatory system	Percentage of geriatric patients visiting ED
Cerebrovascular disease	5902	38	11.1
Ischemic heart disease	6990	45	13.2
Hypertensive diseases	2097	13.5	3.9
others	388	2.5	0.8

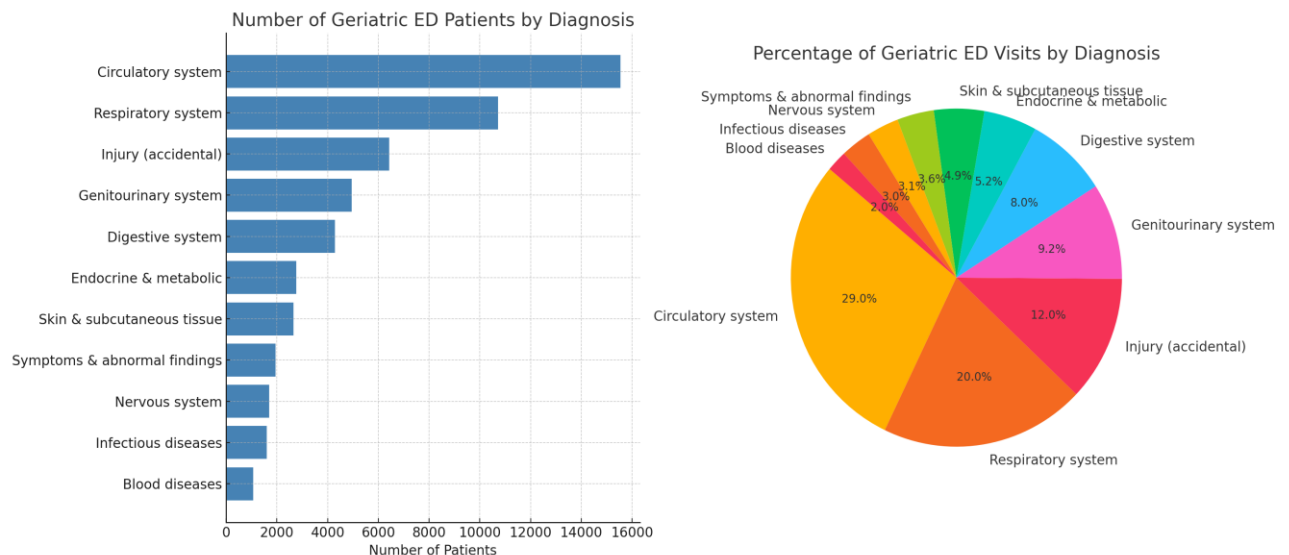


Fig. 1: Showing ED diagnosis of geriatric patients according to ICD-10 codes

## DISCUSSION

As growing proportion of the population, older individuals will make up an increasingly larger share of ED visits in these years. This study describes ED visits made by adults aged 60 and over, assessing selected characteristics by classification of disease according to ICD 10. In our study out of 178840 ED visits 53653 (30%) were by geriatric patients. Ashman JJ *et al.* found that overall ED visit aged above 60 year during period 2014-2017 was 43% [4]. Lumjeaksuwan M *et al.* in 2021 found that overall ED visit by elderly aged above 60 y was 30.91% [5]. Kaeley N *et al.* in 2021 studied 24768 patients above the age of 18 y visited the emergency department over a period of six months and found 5399 (27.5%) patients belonged to the geriatric age group more than 60 y of age [6].

The highest proportion of ED visits were due to disease of circulation (29%), respiratory (20%), and accidental injuries (12%). Keskinoglu P *et al.* in 2014 also found that ED diagnosis of elderly patients was diseases of the circulatory system around 21% followed by diseases of the respiratory system, around 19%. [7] Our study highlights the significant burden of circulatory and respiratory diseases among the elderly in emergency departments. The prevalence of accidental injuries also emphasizes the need for preventive strategies targeting fall risks in older adults.

## CONCLUSION

The study reveals a substantial proportion of ED visits by the geriatric population, consistent with global trends. The predominance of cardiovascular and respiratory complaints underscores the burden of chronic illnesses in this age group. Effective triage, geriatric-specific protocols, and dedicated training for emergency physicians are essential to improve outcomes. Further research is warranted to explore long-term outcomes and resource utilization by geriatric ED visitors.

## FUNDING

Nil

## AUTHORS CONTRIBUTIONS

All authors have contributed equally

## CONFLICT OF INTERESTS

Declared none

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