

# Making the Emergency OPD of a Tertiary Care Center Elderly Friendly through Quality Assurance of Geriatric Syndrome Management Strategies

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## ABSTRACT

**Background:** The emergency department plays an important role in improving elderly care. As an ever-increasing access point for medical care, the emergency department sits at a crossroads between inpatients and outpatient care.

**Aim and objective:** To evaluate the management strategies to make the emergency OPD elderly friendly through quality assurance of geriatric syndrome.

**Materials and methods:** Four hundred elderly patients admitted to the emergency department of a tertiary care hospital were enrolled consecutively. Information regarding baseline characteristics was recorded. A 34-point observation checklist was used to assess the management strategies being practiced for the elderly population. The checklist comprised of observation pertaining to the geriatric-friendly environment; the practice of using geriatric assessment scales; and training of nursing personnel regarding care of elderly patients.

**Results:** Though the engineering aspects of the study setting had adequate-elderly friendly features, there was a scope of ensuring the provision of assistive and enabling devices like walkers, canes, etc., availability of low-heightened beds and trolleys, bedside commode, raised toilet, etc. There was also a definite scope of initiating a system of formal SOPs/protocols/policies/for various syndromes like cognitive decline, urinary incontinence, falls, polypharmacy, pain management, etc. A need was also observed to organize on-the-job training for the nursing personnel because well-informed professionals will be better able to provide quality and customized care to the elderly.

**Conclusion:** Though elderly patients were being managed adequately in the emergency, there was a definite scope of initiating a system of formal SOPs/protocols/policies/for various domains pertaining to geriatric syndromes and training of nurses regarding the care of the elderly.

**Keywords:** Emergency department, Geriatric-friendly environment, Healthcare professionals.

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## INTRODUCTION

Elderly patients have an unpreventable, immutable decline in organ function that occurs with the aging process even in the absence of any injury or illness.<sup>1</sup> Often they need to be hospitalized in the emergency department/unit of a hospital because of various complex medical comorbidities and health issues related to geriatric syndrome.<sup>2</sup> The prevalence of geriatric syndrome increases with age and independently associated with the risk for adverse outcomes such as decreased activity level, hospital readmissions, prolonged hospital stay, increased mortality, etc.<sup>3</sup>

Patients are brought to the emergency department with the hope of getting properly treated and going back home as early as possible. However, the emergency department setting can be an extremely challenging environment for vulnerable patients, especially those with advanced age, with baseline cognitive impairment, and functional limitations. While the emergency department is the traditional entry point into the healthcare system providing essential acute emergency medical care, it is often not an ideal care environment for many older patients.<sup>4</sup>

Older patients in the emergency department are a vulnerable population who are at high risk of functional decline. The mortality rate is higher among the elderly using emergency more frequently.<sup>5</sup> The delivery of acute care in a busy environment to this population has a unique challenge. Emergency services are generally noisy and in constant movement. The lack of privacy can be deconcentrating for the elderly. These can enhance their deterioration in hearing,

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vision, attention, and understanding<sup>6</sup> creating more confusion and anxiety among them.<sup>7</sup>

Among the young patients admitted to an emergency department, there are undoubtedly clinical factors related to acute diseases, which decisively influence the outcome. However, the clinical factors are not so clear in the elderly patients mainly those associated with the functional, emotional, and cognitive states.<sup>8</sup> For

such a complex presentation of elderly patients in the emergency department, comprehensive geriatric assessment, clinical protocols, and policies can play a vital role to identify high-risk older adults and intervene accordingly as per their risk assessment to prevent further potential complications.<sup>9</sup> The addition of an interdisciplinary team and enhanced geriatric assessments in the emergency department can guide clinical decisions and prevent avoidable hospital admissions and may impact the outcomes of this vulnerable population.<sup>10</sup>

Along with this, there should be a noise-free environment, access to proper light, four-point walker, pressure ulcer reducing mattress, provision for extra blankets and sheets, hearing assisted devices, bedside commode, condom catheters, provision of low beds, and low heightened trolleys with side railings, reclining chairs, proper signage, large face clock and also the availability of raised toilet seats.<sup>11</sup> Healthcare professionals should focus on identifying patients who have the highest needs, reducing avoidable admissions, and decreasing emergency visits by developing safe, realistic, and coordinated discharge plans by enhancing existing resources with augmentation in staffing, developing care protocols, assessment templates, and criteria to identify at-risk patients and geriatric focused training and education.<sup>12</sup> Thus, there should be a system of comprehensive assessment by physicians of the geriatric syndromes among the elderly.<sup>13,14</sup>

The elderly patients have unique needs and problems.<sup>15</sup> Thus, it is very important that the healthcare professionals managing these patients should be aware of the problems of elderly patients for their better management.<sup>16</sup> Recognizing the need for a better approach to older patients in the emergency room, comprehensive assessment, nurse-driven prevention protocols, frequent interdisciplinary team rounds addressing common geriatric syndromes, and early discharge planning and anticipation of care needs of elderly, the present research study was conducted to assess the management strategies to make the emergency OPD elderly friendly through quality assurance of geriatric syndrome.

## MATERIALS AND METHODS

This cross-sectional study was conducted in an emergency department of a tertiary care hospital in North India. A total of 400 elderly patients >60 years of age admitted from July to August 2019 and willing to participate in the study were included in the study. The study setting (emergency department) has four areas for the management of the patients including triage, Hall A, Hall B, and Hall C. Patients are initially assessed at triage and then further sent to subsequent areas according to the severity of the disease condition. The patients shifted to Hall A are monitored there and if they require intubation, it is performed there only. The patients requiring intensive care, continuous ventilatory support, and somehow hemodynamically unstable, requiring close monitoring and planning for a long hospital stay are shifted to Hall-B, which is a 25-bedded unit with the facility of cardiac monitors and portable ventilators. Those patients who do not require close monitoring but require certain interventions, e.g., the patients with CKD and raised potassium level, patients with syncope, patients having hypoglycemia/hyperglycemia, cerebrovascular accident, and patients with upper and lower GI bleeding are shifted to Hall-C. Hall A and Hall C are not equipped with ventilators and monitors. Patients are managed on trolleys and adjusted according to the number of admissions in halls and corridors. There is the practice

of manual vital monitoring and ventilator support with the help of Ambu bag, mask ventilation, etc.

## Instruments

A pro forma was used to document the information profile of the patients. A 34-point observation checklist was prepared to assess the management strategies of healthcare professionals pertaining to the geriatric-friendly environment (17 points); use of geriatric assessment protocols/policies (16 points); and training of nursing professionals related to the care of geriatric patients (1 point). It was prepared by consulting the relevant literature, consultation with experts in the concerned department, and the investigators' own observation of working in the emergency department. Of the three domains, the first domain, i.e., the observation regarding geriatric-friendly environment included the availability of noise-free environment; access to proper light; four-point walker; availability of canes; non-slippery surface; pressure ulcer reducing material on trolleys and beds; provision of blankets and sheets; hearing assisted devices; bedside commode; condom catheters; provision of low beds and low heightened trolleys; side railings; door handles; reclining chairs; use of proper signage; large analog clock and availability of raised toilet seats, etc. The second domain was to observe whether the healthcare professionals are making use of any scales for the elderly patients to assess their risk of falls, functional dependence, urine incontinence, cognitive decline, nutritional status, frailty, pain, polypharmacy, medication reconciliation, and whether there are any protocols/policies to manage the problems such as minimizing urinary catheterization, promoting mobility, minimizing physical restraints, etc. The third domain was information regarding the training of nursing professionals regarding the care of elderly patients.

## Data Collection

Data were collected using observation and interviewing techniques. The physical/engineering features of the study setting were observed using the first part of the observation checklist (17 points). Four hundred patients were observed for the use of geriatric assessment protocols/policies (16 points) at the time of their admission in an emergency. Around 50% of the nursing personnel were asked randomly whether they had undergone any training regarding the care of elderly patients.

## Ethical Considerations

Ethical approval was sought from the Ethics Committee of PGIMER, Chandigarh (INT/IEC/2019/00687). Written permission to conduct the study was obtained from the Head, Department of Internal Medicine, and in-charge of the emergency department.

## Statistical Analysis

Data were analyzed using SPSS 20.0 version. Descriptive statistics were employed to analyze the data.

## RESULTS

Most (79.8%) of the patients were in the age group of 60–80 years with a mean age of  $66.3 \pm 0.51$  years. The majority (62.3%) of patients were male. Most (80.8%) were married, belonged to lower class socioeconomic status as per the BG Prasad scale 2017 (88.5%), and had a joint family (83%) 72.8% of patients belonged to rural areas (Table 1).

**Table 1:** Sociodemographic profile of the patients (N = 400)

Demographic variables	f (%)
Mean (age) $\pm$ SD: 66.3 $\pm$ 0.514; range 60–90	
Gender	
Male	249 (62.3)
Female	151 (37.8)
Marital status	
Married	323 (80.8)
Unmarried	8 (2)
Widow/widower	69 (17.3)
Habitat	
Urban	29 (27.3)
Rural	109 (72.8)

Around one-third (31.5%) of patients presented in emergency with the chief complaints of severe pain (abdominal, chest, headache, and backache) followed by episodes of dizziness (14.75%), breathing difficulty (14.5), and accidental falls (9.5%). More than half of patients (63%) were suffering from circulatory diseases with hypertension as the commonest one. This was followed by endocrine and metabolic diseases (24.6%) with diabetes mellitus as the commonest one. Some (17.8%) patients were suffering from certain infectious and parasitic diseases with pulmonary tuberculosis as the commonest one. Very few (0.8%) patients were suffering from mental and behavioral disorders.

### Observation Pertaining to Geriatric-friendly Environment

Table 2 depicts the information pertaining to the geriatric-friendly environment in the study setting. Though engineering aspects of Emergency OPD have adequate features, there was a scope of ensuring non-slippery surfaces. Appropriate door handles were there in the study setting. Availability of low heighted beds and trolleys, bedside commode, raised toilet were also required. There was a need to enhance the access to natural light/proper light in the halls and washrooms of the study setting. This environment will make the facility elderly friendly especially for those who are visually impaired and at risk for falls. Provision of assistive devices like the four-point walker, canes, etc., may be contemplated. There was a strong need for the provision of pressure ulcer-reducing mattresses even on the trolleys on which the patients had to lie down till the allotment of beds. There should be an adequate number of blankets, and bedsheets for elderly patients because they can easily develop an acute febrile illness due to disturbed homeostasis and decreased immunity. The facility of bedside commode may be made available for those patients who cannot walk to the washroom due to fatigue. The provision of hand railings for support in the corridors will help the patients to walk properly. The use of proper signage (clue) will also help the patients and their attendants to get oriented to the environment in such a busy and overcrowded department and help them to reach wherever they want. The provision of a large face analog clock will be an added facility to orient the patients with time.

### Observation Regarding the Use of Various Scales/ Policies for the Comprehensive Geriatric Assessment

Table 3 depicts the observation regarding the implementation of protocols/policies pertaining to the geriatric syndrome in the

**Table 2:** Information pertaining to the geriatric-friendly environment in the study setting (domain 1)

S. no.	Items	Need of improvement
1	Noise-free environment	Yes
2	Access to natural light/proper light	Yes
3	Availability of four-point walker	Yes
4	Availability of canes	Yes
5	Non-slippery surface	Yes
6	Accessibility of pressure ulcer reducing mattresses (material used in trolleys)	Yes
7	Provision of extra blankets and bedsheets	Yes
8	Availability of hearing assistive devices	Yes
9	Availability of bedside commode	Yes
10	Availability of condom catheters	Yes
11	Provision of low-heightened beds and trolleys	Yes
12	Provision of side railings in trolleys	No
13	Appropriate door handles	No
14	Reclining wheelchairs	Yes
15	Use of proper signage	Yes
16	Large face analog clock	Yes
17	Availability of raised toilet seats	Yes

study setting. There was a provision of protocols/policies regarding emergency triage; minimizing nil per oral (NPO) designation and good access to appropriate food and drink; promotion of mobility (with the assistance of staff); minimizing the use of physical restraints and good coordination with other departments such as cardiology, psychiatry, nephrology, urology, etc. There was a separate queue to prepare admission cards for the senior citizens. However, there was a need for a separate assessment area for the older patients. There is a need to implement the practice of use of various geriatric assessment scales to assess risk for falls, cognitive decline, functional decline, urine incontinence, nutritional status, frailty, and polypharmacy. There is also a need to use separate protocols to manage the elderly patients in the study setting (for falls, polypharmacy, medication reconciliation, and a policy to promote mobility with the assistance of staff or attendants). There is an urgent need for focused training and education of nursing professionals regarding assessment, criteria to identify at-risk patients, and care of elderly patients. Their awareness about geriatric syndromes and their management practices need to be regularly updated.

### DISCUSSION

The emergency department is uniquely positioned to play a vital role in improving care for the geriatric population. As an ever-increasing access point for medical care, the emergency department sits at a crossroads between inpatients and outpatient care. With the increase in age, elderly people become more susceptible to disease and disability. It impacts the use of healthcare services particularly the emergency department. An indecisive proportion of seniors are considered frequent

**Table 3:** Implementation of protocols/policies for the management strategies of the various geriatric syndromes in the study setting (domains 2 and 3)

S. no.	Protocols/policies for the geriatric syndrome	Need of implementation of protocols/policies
1	Emergency triage	In place and adequate
2	Risk for fall	Yes
3	Cognitive decline	Yes
4	Functional dependence	Yes
5	Urine incontinence	Yes
6	Nutritional status	Yes
7	Frailty	Yes
8	Polypharmacy	Yes
9	Pain management	Yes
10	Medication reconciliation with the pharmacist	Yes
11	Minimizing the use of potentially inappropriate medication	Yes
12	Minimizing urinary catheterization	Yes
13	Minimizing NPO (Nil per Oral) designation and promoting access to appropriate food and drink	In place and adequate
14	Promoting mobility (with the assistance of staff)	In place and adequate
15	Minimizing the use of physical restraints	In place and adequate
16	Coordination with other departments cardiologist, psychiatrist, nephrologist, urologist, etc.	In place and adequate
17	Training of nursing personnel regarding elderly care	Yes

emergency users. They have limited regenerative abilities and are more prone to multifaceted diseases, various symptoms, and feelings of sickness than younger adults.<sup>7</sup> They are inclined to experience misalignment between their medical needs and their use of healthcare making them liable to use these services more frequently.

In the present study, it was observed that there was a scope of making the emergency environment more geriatric-friendly. Improvement can be envisaged by reducing the noise and overcrowding in the department. Provision of proper light, four-point walkers, pressure ulcers reducing mattresses/material on the trolleys, hearing devices, bedside commode, extra blankets and sheets, low heighted trolley, availability of raised toilet seats and large analog clock, etc., will be a value addition to the quality of care in the department. Kelley et al. conducted a similar study to assess the environment of an emergency department and its impact on the care of adults above 75 years of age. It included the physical environment, procedures, and social climate of the emergency department. They have reported that the emergency department was a fast-paced, crowded area, with inappropriate equipment and furniture causing barriers to appropriate care to the elderly.<sup>17</sup> In fact, the availability and accessibility of all things will help prevent disorientation in the elderly patients and adapt

to this busy environment of the emergency department and also help to prevent further potential complications like falls, bedsores, confused state of mind, anxiety, and not willing to participate in interventions.

With the advancing age, there is a functional decline and impairment of all the body systems and the person becomes dependent on others for his daily needs. In one of the studies, dependency in the domain of continence has been reported at the top followed by toileting, bathing, transferring, and dressing.<sup>18</sup> The problems and dependency become more when the person is admitted to the emergency department.<sup>8</sup> So, it is important to conduct a comprehensive assessment of the patients using various scales to identify the geriatric syndrome to know the problems of patients already had and what potential complications patients may develop during the hospital stay. Based on the results of the present study, it is proposed to introduce a practice of using various assessment scales to assess the risk for falls, cognitive decline, functional decline, urine incontinence, nutritional status, frailty, polypharmacy, etc., for elderly patients. Simultaneously, there is a need to implement separate protocols to manage elderly patients in the emergency department like to prevent falls, polypharmacy, medication reconciliation, minimize and standardized urinary catheterization, and a policy to promote mobility with the assistance of staff or attendants. This will facilitate all the healthcare providers to better address the potential gaps in the care of elderly patients, especially in cognitive assessment, medication management, and safe transitional care planning. This will focus on identifying patients who have the highest needs and may reduce avoidable admissions and decrease emergency visits by developing safe, realistic, and coordinated discharge plans. These management practices if implemented will help healthcare professionals to take the initiative to treat the elderly patients in a comfortable environment that will promote early recovery, reduce patient's anxiety, agitation, and confusion due to unfavorable conditions. The probable reasons for not practicing these strategies might be the lack of manpower, lack of awareness among healthcare professionals, and other major emergency treatable conditions of patients, so these syndromes might remain neglected in emergency settings. The creation of a standalone geriatrics department will be a welcome step in this regard.

Sanon et al. developed a model of geriatric emergency that addressed the unique care needs of older adults in the emergency department. It helped to make clinical decisions and facilitates traditional care after an ED visit.<sup>3</sup> Current study has revealed that ideal management practices can be implemented easily in the emergency department. Literature is scarce regarding management strategies related to the geriatric syndrome in emergency departments. Few studies have concluded mixed results. In one of the studies, it has been reported that early geriatric assessment conducted by a nurse specialist did not affect admission rates, length of stay, or functional decline.<sup>9</sup> However, in another study, a nurse who especially focuses on discharge planning for older adults reduced the proportion of unscheduled emergency return visits and ease the transition from emergency back home and into the community.<sup>10</sup>

Trained manpower when armed with the knowledge of age-related changes, geriatric syndromes, and proper assessment tools can play a vital role in improving geriatric standards of practice. Understanding the unique features of common health conditions in older people is essential for all healthcare personnel.

Healthcare professionals can identify and implement many interventions proactively, thereby making a significant positive difference in improving outcomes. In a qualitative study<sup>11</sup> carried on 527 registered nurses from US hospitals, five central themes emerged from the analysis *viz.* respect for the older adults and their caregivers; correct and best procedures; care systems and processes; treatment, time; staff to do things right and a safe and enabling environment. The nurses suggested solutions to address the shortage, including conversion to the social environment, policies and procedures, care systems and processes, and physical design. So, the problem recognized and solutions suggested by nurses could be helpful in planning strategies for the care of elderly people in an emergency.

So, there is a need of educating emergency nursing staff related to care of older patients; atypical presentation of disease; trauma including falls; cognitive and behavioral disorders; emergency intervention modifications; medication management/polypharmacy; end of life care; nursing assessment tools, etc. Not only the educational training among healthcare professionals is needed, but there is also a need for refining the governmental policies in this regard. Every hospital should have a policy for the care of the elderly in routine as well as in emergency situations. While the functionally and cognitively fit elderly can access usual healthcare facilities provided by the government, they need an active aging program to keep them independent.

The Health Ministry has created geriatric centers and geriatric clinics in most of the states. However, these centers may not serve the functionally and cognitively impaired elderly.<sup>19</sup> There is a great need for mobile units, good quality daycare centers, and hospices, and the need for training of personnel in nursing homes.

One of the studies conducted in North Indian city shows that the old age homes that already exist do not provide quality of care and facilities as per the standards.<sup>20</sup> Routine care clinics cannot handle the burden of the geriatric population to address their multimorbidity and several other age-related problems. There is a need for rapid training of healthcare professionals of various disciplines in geriatric care. The government must support non-governmental organizations and other agencies which provide daycare, home care, and palliative care so that these services become affordable to all elderly.<sup>21</sup>

## CONCLUSION

Management strategies pertaining to the use of geriatric assessment protocols, geriatric-friendly environment, and training of nursing professionals to care for geriatric patients were assessed in the study setting. Though elderly patients were being managed adequately in the emergency medicine OPD, there was a definite scope of initiating a system of formal SOPs/protocols/policies for various domains, e.g., cognitive decline, urinary incontinence, falls, polypharmacy, pain management, training of nurses regarding the care of elderly, etc.

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