

Transitions of Care for the Geriatric Patient in the Emergency Department

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KEYWORDS

- Senior • Emergency department • Geriatric hand-off • Patient transfer
- Transfer of patients • Transitions

KEY POINTS

- Usage of the emergency department (ED) by elderly patients is distinct from that by non-elderly patients.
- The transfer of elderly patients to and from the ED has many challenges, because these patients have multiple providers, multiple comorbidities, and often cognitive impairments that limit their ability to participate in their care.
- Vital information such as the reason for transfer, vital signs, code status, medication lists, or baseline mental status is often missing in the documentation provided from a nursing home.
- Failed transitions are regularly implicated in major morbidity and mortality, caused by problems like medication errors, adverse drug events, lack of timely coordination follow-up care, and unnecessary rehospitalizations.
- Standardized communication has been evaluated as a solution to omissions, and may be helpful in reducing errors related to diagnostic uncertainty and care planning.
- There is a need to develop more robust metrics for the care provided to the geriatric patient in the ED and their transition from one provider to another.
- Federal economic quality incentives rewarding high-quality transitions could potentially improve the paradigm and improve behaviors of clinicians and institutions.

Funding Sources: Nil.

Conflict of Interest: Nil.

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Clin Geriatr Med 29 (2013) 49–69

<http://dx.doi.org/10.1016/j.cger.2012.10.005>

geriatric.theclinics.com

0749-0690/13/\$ – see front matter Published by Elsevier Inc.

INTRODUCTION

The graying of America is a phrase used to describe an anticipated change in America's demographics over the next decades. By 2030, more than 20% of US residents are expected to be 65 years or older, representing a 102% increase from the year 2000.¹ The phrase can also be used to describe the future of America's emergency departments (EDs). Elderly patients represent the fastest-growing segment of ED patients in the United States²⁻⁵ and according to a study published in the *Annals of Emergency Medicine*, the annual number of patients aged 65 to 74 years visiting EDs is projected to increase from 6.4 million in 2003 to 11.7 million by 2013.⁶

Elderly patients are more likely than other groups to be transferred between facilities⁶ and the ED has become a common touch point for elderly patients moving through our health care system. As elderly patients move from one health care setting to another, their medical information and history, which are often complicated and long, must follow with them and be successfully communicated to each new provider who is continuing care. This transition of care from one facility to another, from one provider to another, is wrought with challenges. Elderly patients represent not only a large percentage of ED visits each year, they are more likely to suffer from chronic illness, multiple medical comorbidities, cognitive and functional impairments that limit their ability to communicate, and preexisting social problems.⁷⁻⁹ Elderly patients are also more likely than other groups to receive care from multiple providers, increasing the frequency that these transitions occur. A 2001 Harris poll found that patients with 1 or more chronic medical problems see, on average, 8 different physicians in a single year.¹⁰ These factors make transferring the elderly patient a challenging process that is prone to errors.

The safe transfer of elderly patients from one health care setting to another has become an increasingly important area of research. The American Geriatrics Society (AGS) developed a research agenda for emergency medicine and the highest priority was given to identifying if alterations in the process of ED care can improve outcomes in older patients.¹¹ The goal of this article is to present a summary of the current literature surrounding the transitions of care for the geriatric patient in the ED. We review the transition of elderly patients to the ED, from the ED to inpatient, and from the ED back to the community, and provide an analysis of current proposals to improve care.

METHODS

A transparent search methodology ensures the reproducibility of results that characterize evidence-based research. The search strategy for this project was designed and conducted by a medical librarian (CP) with input from the clinical lead and coprincipal investigators. Medical subject headings unique to each database and relevant keywords were integrated. A comprehensive search of the following electronic databases was undertaken for primary studies:

- a. Medline (1966–February 2012) was searched using the PubMed interface
- b. EMBASE (1974–February 2012)
- c. PsycInfo
- d. CINAHL
- e. Google Scholar
- f. Web of Science (1993–February 2012)
- g. ISI Web of Science was searched for articles that cite studies included in the review

Limits used in all databases were “10 years” and “English.”

The following search strings show representative combinations of keywords and subject headings that were reconfigured to comply with indexing thesauri of each database.

PubMed: “Geriatrics”[Mesh] OR (“Aged”[Mesh] OR “Geriatric Assessment”[Mesh] OR “Geriatric Nursing”[Mesh] OR “Geriatric Psychiatry”[Mesh] OR “Geriatric Dentistry”[Mesh] OR “Health Services for the Aged”[Mesh]) AND “Patient Transfer”[Mesh].

EMBASE: transition OR relocation OR transfer AND [2000–2012]/py AND ‘aged’/exp/mj OR ‘geriatrics’/exp/mj AND [humans]/lim AND [english]/lim AND [2000–2012]/py.

Google Scholar: (“client transfer” OR transfer OR relocation OR move) AND (aging OR aged OR “elder care” OR geriatrics OR geriatric OR gerontology).

Authors then reviewed titles and abstracts, and articles were sorted into 1 of 5 categories: “Presenting to the ED,” “Transitions to Inpatient” “Discharge from the ED” “Systems and Costs,” and “Irrelevant.” Inclusion criteria were that the article had to discuss the ED and either elderly patients or transitions of care. Articles deemed irrelevant discussed neither. Articles were not limited to research published in the United States. Each remaining article was then read and analyzed. Bibliographies were also reviewed for further relevant articles not discovered through our initial search, and those were then added to their relevant category.

RESULTS

The initial search yielded 787 results citations. Sorting yielded 75 articles in the presenting category, 31 in the inpatient category, 59 in the discharge category, and 47 articles in the systems/costs category. A remaining 575 articles were determined to be irrelevant to the study. After bibliographic review, an additional 13 articles were added to the presenting category and 4 were added to the discharge category. The results are grouped into discussion threads for continuity (**Table 1**).

Use of the ED by Elderly Patients

ED use by older patients is well described, and the data suggest that elderly ED usage is distinct from that of nonelderly patients.^{7,14–18} A 2002 literature review that compared older patients with younger ones found that older adults use emergency services at a higher rate, their visits are higher acuity, they have longer lengths of stay, have higher admission and recidivism rates, and suffer from higher rates of adverse health outcomes after discharge.¹⁹

The exposure to potential transition-associated errors is alarming, because elderly patients experience transitions often. The 1994 long-term care survey of postacute and skilled nursing facilities revealed that between 1992 and 1994, roughly 5 million patients older than 65 years made more than 15 million transitions.²⁰ Four key areas have been identified as reasons for elderly transfer: infections, falls, pain, or exacerbation of a chronic illness.²¹ **Box 1** suggests symptoms most frequently endorsed at the time of transfer. In addition, elderly patients are more susceptible to the risks of transitional care because they are frail, often cognitively limited, and suffer from chronic illness, with multiple comorbidities.^{22,23} Studies have shown that up to 40% are transferred to an ED within 30 days of their death²¹ and as a population have been shown to have a higher medical acuity²⁴ in general. Transitions of care are generally believed to negatively affect quality of life for elderly patients as a result of medical errors, unnecessary treatments and hospitalizations, and additional stressors related to changing locations.^{25,26}

Table 1
Search methodology and results

Database	Search Terms	Limits	Retrievals	Relevant Retrievals	Duplicates Removed	Total Added
PubMed	"Geriatrics"[Mesh] OR "Aged"[Mesh] OR "Geriatric Assessment"[Mesh] OR "Geriatric Nursing"[Mesh] OR "Geriatric Psychiatry"[Mesh] OR "Geriatric Dentistry"[Mesh] OR "Health Services for the Aged"[Mesh] AND "Patient Transfer"[Mesh]	English, published in the last 10 y	581	320	0	320
EMBASE	transition OR relocation OR transfer AND 'aged'/exp/mj OR 'geriatrics'/exp/mj	[2000–2012]/py [humans]/lim AND [english]/lim	109	36	21	15
PsycInfo	transfer OR relocation OR move DE = "client transfer"	Earliest to current	135	20	7	13
Google Scholar	("client transfer" OR transfer OR relocation OR move) AND (aging OR aged OR "elder care" OR geriatrics OR geriatric OR gerontology) led to a previously undiscovered PubMed citation. A related articles search on this citation revealed 60 articles, which were uploaded to RefWorks		60	60	21	39
CINAHL	((XX "transfer" ¹² AND (XX "client" ¹³)) OR (transfer) OR (relocation) OR (move)) AND ((aging) OR (aged) OR ("elder care") OR (geriatrics) OR (geriatric) OR (gerontology))) AND emergency department	2000–2012	99	72	30	42
Web of Science	Related records: Aaltonen, Mari. The impact of dementia on care transitions during the last two years of life. (References used: 30)	ENGLISH Publication Years = (2010 OR 2009 OR 2011 OR 2008 OR 2007)				10

Box 1**The most common chief complaints leading to transfer from nursing home (NH) to ED**

Fever (77.5%)

Poor oral intake (70.4%)

Altered mental status (68.7%)

Respiratory symptoms (67.0%)

Electrolyte or other laboratory test abnormalities (62.2%)

Neurologic problems (61.9%)

Data from Ackermann RJ, Kemle KA, Vogel RL, et al. Emergency department use by nursing home residents. Ann Emerg Med 1998;31(6):749-57.

Transition to the ED: the Prevalence of Information Gaps

A large body of research has been conducted analyzing the transitional care experienced by elderly patients living in NHs and long-term care (LTC) facilities. Roughly 5% of elders live in NHs, and those who do are generally frail, with multiple medical problems and impairments,²⁷ and they are often subject to fragmented care with little continuity. The larger group of community-dwelling patients living in the community either alone or with a caregiver present to the ED from home rather than residential care setting. However, many of these patients are subject to similar risks of transition to elderly NH dwellers.^{28,29} Multiple studies show that there is an information gap between the NH and the ED.³⁰⁻³² For example, elderly patients are often transferred to the ED with little documentation of their symptoms, recent treatments, or pertinent medical history.²³ Often, vital information such as the reason for transfer, vital signs, code status, medication lists, or baseline mental status is missing in the documentation provided from the NH.⁹ Studies have suggested that information is missing for 74% to 90% of the patients presenting from NHs.³³ Cognitively impaired patients who are unable to provide health information are especially vulnerable to information gaps. Confusion related to living wills and code status negatively affects the care provided by emergency medical services (EMS) and ED providers.³⁴

Several studies have indicated that deficiencies in communication in the care of the LTC patient increase the risk of potentially avoidable events.³⁵⁻⁴⁰ Failed transitions are regularly implicated in major morbidity and mortality caused by prescription errors, adverse drug events, lack of timely coordination of follow-up care, and unnecessary rehospitalizations.⁴¹⁻⁴⁴ Several studies have described medication errors after transitions as potentially deadly in this patient segment.^{28,43,44} Failed NH-ED transitions lead to unnecessary resource utilizations in emergency, inpatient, postacute, and ambulatory services.^{20,45,46}

NH-ED relationships are often dysfunctional. The 2 institutions have different capabilities, scopes of practice, and goals of care. The transfers usually occur in urgent or emergent circumstances that do not permit adequate time spent on coordinating the transition. Another major factor identified as contributing to poor coordination of NH-ED transfers is the different financial and reimbursement structures in the NH and the ED, and subsequent lack of incentive for either provider to strive for superior communication.⁴⁷

To address these shortcomings, various studies have looked at ways to improve NH-ED communication. In 1995, the Society for Academic Emergency Medicine (SAEM) Geriatric Task Force recommended the use of a 1-page transfer form, and various studies have analyzed the effect of transfer form use. The results have been

mixed, with some finding that the gaps in information did decrease³¹ but there was no change in case resolution time or disposition.⁴⁸ Staff members can believe that there is an improvement with the use of a standard envelop for care⁴⁹ but the effect is limited, because these forms are not used regularly and consistently.

Transitions to Inpatient: the Effect of Poor Communication on the Sickest Patients

More than 25% of NH residents receive ED care annually, and these patients are frequently admitted to acute-care hospitals.^{50–52} Of those who do go to an ED, between one-third and one-half result in a hospital admission. These rates are between 2.5 and 4.6 times higher than the hospitalization rates for younger patients. Transfers of patient care between levels of care within the same institution (ie, from ED to inpatient) are known to be a source of communication errors resulting in adverse medical outcomes.^{53–55} This topic has been thoroughly studied for general populations as a potential opportunity to improve quality of care. A Finnish study indicates that most elderly patients experience several transitions during their last 2 years of life, with an increasing frequency as they approach death.⁵⁶ It is now more common for older people in Europe and North America to die somewhere other than home.^{57–60}

According to the 1997 National Institutes of Health National Nursing Home Survey adults aged 65 years and older averaged more than 300 visits to the ED and 200 hospital admissions per 1000 persons.⁶¹ When admitted, older emergency patients are more likely to require a bed in an intensive care unit (ICU). Elderly patients in the ED with sepsis experience increased times to ICU admission, and slower dispositions to ICU are statistically related to increased in-hospital mortality.^{62–67} Older adults undergo more diagnostic tests and procedures, their ED diagnoses tend to be less accurate, and ED stays are longer compared with younger patients in the ED.⁶⁸

Although our literature search did not reveal any articles describing intrahospital transfers (ie, ED to floor) specifically for the elderly population, it is reasonable to assume that the challenges faced in any transfer of care apply to elderly patients admitted to the ED. The largest body of research on transfers has focused on hand-offs within a specialty^{68,69} (ie, end-of-shift sign-outs between residents or nurses), with few studies examining the ED to floor transfer.^{67,69–73} The hand-off that occurs between emergency physicians and internal medicine physicians is believed to be particularly high risk because of major cultural, social, and linguistic differences between the 2 practitioners.^{74,75}

Certain factors were found to represent vulnerabilities in the hand-off process, creating an opportunity for error. Communication issues were most frequently identified in failed transfers. One survey of 264 internal medicine and emergency medicine physicians of a large academic hospital identified 40 examples of near misses in admitted patients that occurred after ED to floor transfers. The errors were categorized as diagnostic (N = 13), treatment (N = 14), and disposition (N = 13). Vital signs and other elements of the physical examination were most frequently not communicated to admitting teams, followed by test results, details of the medical history, and the ED course. The most cited content item absent in communication was the most recent set of vital signs, occurring in 28% of responses. In addition to absent diagnostic information and communication issues, there are also conflicting expectations of care responsibility, particularly for admitted patients boarded in the ED. Even although the patient may be physically in the ED, emergency physicians note few to no cases in which an internist notified the ED about problems or clinical updates.⁷⁶

Environmental factors such as ED volume, time of day, and access to information technology were implicated in high-risk transfers. A hectic ED environment and pending diagnostic results cause hurried sign-outs and missed follow-up of ordered

tests or procedures.⁷⁷ For example, patients requiring emergent advanced imaging or hemodialysis can be immediately transferred to an inpatient ward after the procedure, bypassing the ED and resulting in a missed opportunity for communication with the admitting service. Other risks of the ED to floor transfer include diagnostic uncertainty at the time of hand-off, cognitive biases, need to save face, or a need to prove that a patient meets admission criteria.^{67,70,78} Thus, a seamless ED to floor transfer requires attention to the institutional social order, which varies by institution.^{67,70,79–82}

Discharge from the ED: a Poorly Communicated Plan is the Same as No Plan At All

The lack of appropriate and timely follow-up care can quickly undermine the benefits achieved in the previous setting, resulting in further functional dependency and permanent institutionalization. Of all patients aged 65 years or older presenting to the ED, 23% are discharged with home care, 42% are discharged to another institution within 24 months, and 11.6% are discharged home.^{83,84} When patients are discharged from the hospital, they may be uncertain about whether they should resume their previous medication regimen or take only the medications listed on their discharge instructions.^{85–87} Because elderly patients are more likely to experience diagnostic errors or omissions, they can consequently be discharged with problems that are either overlooked or untreated.^{18,84} This confusion causes many older patients to complain of the lack of complete resolution of their presenting symptoms after an ED visit. Many believe that their needs have not been met and often come back to the ER.⁸⁸

When discharged, older patients are also more likely to experience higher rates of adverse health outcomes.⁸⁹ The risks are particularly high in the first 3 months after an emergency visit, with an average mortality of about 10%,^{90–92} Although mortality and hospitalization rates tend to stabilize after the first 3 months, the cumulative rates of ED returns continue to increase in a slower fashion in the next 3 months⁹³ with a return rate of as high as 44% reported in a 6-month follow-up study. Those who have a higher base morbidity, an ED visit, or hospitalization within the past 6 months, or are triaged to the emergency unit over urgent care are particularly at risk for an adverse event.⁹⁴

When adverse events occur or functional status declines, patients then return to the ED for more care. Recidivism (ie, bounce-back) within 14 days is known to occur more frequently in elderly patients.⁷ In 1 study, 29% of patients older than 75 years returned to the ED within 14 days, 90% of them for the same medical condition.⁷ Other studies show that 19% of patients return to the ED or another acute-care hospital within 30 days, and as many as 42% within 24 months.⁹⁵ Hospital readmissions are costly, disruptive to patients and families, and tend to interrupt the comprehensive care plan established between patients and their providers. Hospitalization also increases risks of acute delirium, iatrogenic illness, adverse drug reactions, and pressure ulcers.⁹⁰ However, the findings related to the changes in functional capacity are less conclusive because of the inconsistencies in the definitions and measures used across studies.

Several studies have looked for ways to reduce these high rates of recidivism. In 1 analysis, the incorporation of a standardized nursing assessment for people 65 years and older decreased functional decline. However, there was an associated increase in the rate of return visits to the ED as well as referrals to community resources and primary care providers.⁸⁹ Several studies have found that that a nurse who helped coordinate discharge care for elderly patients led to fewer ED return visits and fewer admission,^{13,88,96} with improved mental status and decreased stress for caregivers,⁹⁷ but without change in overall health outcomes or mortality.^{94,95} Many of these studies did not stratify patients according to risk factors, and when the trials selected for patients that were high risk, as opposed to just an age inclusion criterion, there was more consistent improvement in functional status. However, these trials are difficult

to conduct, because they are difficult to blind and standardize.⁹⁶ The Comprehensive Geriatric Assessment is a validated tool that assists the prediction of the risk of readmission, but widespread ED adoption is limited by time required to perform analysis.⁹⁸ Numerous other more facile clinical decision-making tools for geriatrics exist.^{12,99,100} A Swiss ED-based comparison of readmissions for 7440 patients aged 75 years or older found no statistical difference in unpredicted readmission rates between the Identification of Seniors at Risk Tool (ISAR) and the Triage Risk Stratification Tool.¹⁰¹ EDs with dedicated care managers or geriatric teams may use these tools more effectively to assist with disposition decisions.

The Cost of Poor Transitional Care

The increase in transfers of elderly patients to the ED could exacerbate existing problems with overcrowding in many departments. Research has also shown that up to 40% of transfers of elderly patients to the ED may be inappropriate.¹³ It has been estimated that as many as one-third of NH-ED transfers are potentially avoidable, placing an unnecessary strain on existing resources.⁹⁸ One study calculated a cost of \$1.24 billion in avoidable transfers in New York State alone.¹³ Many investigators have previously examined the multiple factors associated with unnecessary transfers.¹² NHs that provide expanded services, such as midlevel providers on staff and intravenous therapies, have shown lower relative admission rates for specific diagnosis categories.⁹⁹ Two successful examples of comprehensive health programs include Evercare and Program of All-Inclusive Care for the Elderly, both of which have shown a reduction health care use since the program implementation.^{100,101} One example of comprehensive NH physician services involved daily visits to the NH by geriatric physicians, with specific attention paid toward advanced directives, in which patients could not be transferred before undergoing an evaluation by a physician.¹⁰² Ideally, the potential for harm from an additional transition is weighed against the potential benefit in each case before any decision to transfer.^{103–110} In any transfer, the patient's medical needs should justify any change in physical care setting. A comprehensive economic analysis of care transitions for this patient segment is outside the scope of this review, and is an area that necessitates further research and attention.

DISCUSSION

Barriers to Improvement

Several systemic obstacles exist that potentiate the problems associated with elderly transitional care. Coleman and colleagues¹⁰⁵ recognized barriers to effective transitions of care at the levels of the health care delivery system, the clinician, and the patient. The US health care delivery system has evolved into a system of separate silo facilities, which act independently and often impede successful transitional care. Because of the closed nature of the origin and receiving institutions, information is not adequately conveyed to the next provider.^{45,111–115} As a consequence, vital components of the care plan such as advanced directives and results of laboratory and diagnostic tests are frequently lost in transition.^{22,116–118} The patient is at a disadvantage because of this lack of collaboration.¹¹⁹ Verbal communication between providers has been determined by the SAEM Geriatric Task Force as an essential element for high-quality transitions.¹²⁰ However, a 2010 survey of 155 NH and ED providers indicated that less than 50% of providers responded that verbal communication “should always occur” between transferring providers. In the same survey, only 2.6% and 16.1% of respondents “strongly agree” or “somewhat agree” that there is good communication between NHs and EDs, respectively.¹⁰³

Clinician-level factors include behavioral biases and inadequate training in managing acute illness in elderly patients in the ED. In 1 survey of emergency physicians, 78% of respondents expressed “more difficulty” in managing elderly compared with nonelderly patients, and 53% believed that they were inadequately prepared for clinical geriatric care.² Of these providers, nearly 70% of surveyed physicians indicated that emergency geriatrics is inadequately represented in emergency medicine research and continuing education programs. An emerging concept in the behavioral practices of emergency health care workers treating elderly patients is that of ageism.¹²¹ A survey of ED nurses indicated that many providers attach a negative association with age, creating a negative attitude that pervades the care of elderly patients in the ED.¹²¹ Further research is necessary to determine the possible sequelae of ageism. These statistics could indicate a skills deficiency, which should be addressed by research and professional training in this increasingly important area.^{120,122–126} Clinicians are also prone to behavioral biases, which can compromise transitional care.

Patient-level barriers to high-quality transitional cares are also multifactorial. First, elderly patients are frequently unable to provide history and often have no advocates to ensure that effective care is administered and the care plan is followed.^{115,116,127,128} In many cases, those patients with high baseline cognitive function are not made aware of the reason for transfer nor allowed an active role in their care plan.^{113,129,130} In these cases, neither the receiving provider nor the patient understands the reason for transfer, creating dissatisfaction for patients and providers alike.^{114,127}

The Need for Transitional Care Metrics

Elderly patients represent a unique category of patients in the ED, as shown not only by the unique challenges that they pose to providers but also by the growing field of geriatrics and the increased recognition by many specialties for the need for more research regarding care for this population. The movement to improve quality care has been growing over the past decade since the publication of the Institute of Medicine’s famous report *To Err is Human*. As Terrell and colleagues¹²³ recognized, “a prerequisite for assessing (and, where needed, improving) the quality of emergency medical care is ability to measure quality of care.” Both the SAEM and the American College of Emergency Physicians have recognized that there is a paucity of measures for quality care specifically designed for the geriatric patient. This lack of data makes it not only difficult for researchers to have a strong database from which to conduct analyses but also prevents institutions and groups from having information about their own performance regarding the geriatric patient and how to improve it. To this end, the AGS’s research agenda-setting process has identified as its highest priority determining if changes in the process of ED care improved outcomes in older patients.¹¹ What is clear is that increased focus on creating measures and processes that reflect the quality of care provided to the geriatric patient is necessary. One of the barriers that current practitioners face is a scarcity of information about their own performance and few guidelines or processes designed to facilitate the geriatric assessment.

Optimizing Patient Hand-Offs

Standardized communication has been evaluated as a solution to omissions, and may be helpful in reducing errors related to diagnostic uncertainty and care planning.¹³¹ Standardization exists in many medical settings in the form of checklists, protocols, and sign-out templates.¹³² Consistent communication styles has proved to be effective in error reduction in other high-risk, nonmedical sectors.^{133–139} Emergency physicians rarely use protocolized hand-off tools that have been validated in other specialties.^{67,93,140–143} A standard hand-off tool may also ameliorate the effect of

interpersonal biases that can obscure communications across the cultures of the ED and admitting physicians.¹⁴⁴ Socialization issues are particularly problematic in communications within functionally diverse teams.^{67,75,145} For example, 1 study showed that emergency physicians felt compelled by internist colleagues to name definitive diagnoses in cases that led to premature closure.⁷⁸ Differences in prioritization, coordination, and expectations of care result in dysfunctional relationships, with resulting increase in patient morbidity.^{72,146} Designing a transfer tool for cross-specialty communication requires consistency as well as flexibility, which allows providers to collaborate. Multidisciplinary rounds, joint conferences, and real-time feedback cycles have been proposed as methods of maximizing institutional buy-in of a hand-off tool.^{140,147} To reduce reliance on telephone conversations, institutions could benefit by investing in electronic record systems, which allow transparency in vital signs and clinical records.^{141,142} Boarding patients and those with an intermediate destination before arrival to the floor have repeatedly been found to be at especially high risk for falling through the cracks as a result of ill-defined ownership of the patient.^{70,72,73,93,143,144} Hospital-wide patient-tracking dashboard systems that tag boarding ED patients and open beds, lean, and 6 sigma methods also have the potential to reduce risks of transitional errors.^{148,149}

Addressing the NH Transition

As has been shown, information gaps are a major dilemma and source of risk for patients transferred from NH to ED. The patient's medical history and the reason for transfer should be clearly documented and transferred with the patient to the receiving ED. Available documentation should include details about any new symptoms or problems, the patient's baseline cognitive function and ability to communicate, any changes from baseline, relevant past medical history, medication history, and advanced directives. Failure to transfer pertinent information that is easily accessible to NH staff results in performance of unnecessary tests and interventions, and increased risks of adverse outcomes.^{9,150} The use of a standardized transfer form does provide benefit, assuming that it is completed accurately and is used. A suggestion is to discuss within communities if there is a way to create a standardized form that is common to the major institutions in an area, so that there is less confusion surrounding which elements are to be completed and where information should be located.

Improving Transitional Care

There is no currently accepted standard for transitional care. Transitions of care occur when patients are transferred between different levels of care. Transitions may occur across physical locations or within a single location, such as transferring from the ED to an ICU or subacute care unit.¹⁵¹ Transitional care describes the set of actions that enables continuity of health care over the course of a transition.¹⁵² In 2009, the National Quality Forum proposed that transitional care should be measured when assessing quality of care coordination.¹⁵³ Elements to be evaluated include the quality of communication between providers, the quality of information, and the coordination of care services after the patient's transfer. Literature describing the EMS perspective on geriatric transitional care is rare and is a potential area of high-yield research.¹⁵⁴ Methods of education of prehospital providers have shown promise in increasing EMS provider sensitivity and awareness.¹⁵⁵ Effective transitional care is wholly dependent on the quality of communication between sending and receiving providers. Components of an effective care transition are listed in **Box 2**. Additional research priorities in geriatric transitional care include improved provider education, cognitive screening, identifying at-risk patients, and medication management.¹⁵⁶

Several studies have evaluated the effect of communications interventions in improving the transitional care of elderly patients between NHs and acute-care hospitals. Emphasis on emergency medicine resident training in geriatrics has not yet been adopted uniformly, although several models exist.^{157,158} A 2010 SAEM expert consensus panel created 26 competencies in geriatrics care that could form the basis of a standardized resident evaluation.¹⁵⁹ Our review of these studies found benefit of these interventions in communicating current medications and advanced directives.^{31,105,121,160–162} Previous studies have shown that when available, completed advanced directives can affect medical decision making.²² In some cases, clear communication of advance directives might have prevented a transfer to the ED.¹⁴

Electronic communication tools have been proved to facilitate information transfer between physically separate institutions and improve transitional outcomes.^{113,163} A uniform electronic instrument can provide varying amounts and richness of information, and can be used to arrange referrals and follow-up care. Paper communication tools are capable of providing adequate information about the transfer but they should be standardized and attentively completed. Switching to electronic records has the potential to achieve the effect of the 1-page transfer form recommended and reduce the risk that the form is left incomplete or ignored.

The ISAR is one of several screening interventions that targets high-risk elderly patients in the ED and has been validated for use in the ED.¹⁶⁴ Patients who screen positive can be referred to an in-house specialist (ie, nurse, discharge planner), with additional training in emergency geriatrics for further assessment and coordinating necessary follow-up.^{19,55,92,165–168} Some trials have looked at using a midlevel provider who is accountable for following high-risk older patients longitudinally after discharge, and this has been effective in reducing readmissions, costs, and lengths of hospitalizations.^{169–171} An extended care pathway is a protocolized method of planning for the various stages of a patient's care based on a multidisciplinary approach to a specific reason for transfer. These methods have proved effective in hip fractures, with improved outcomes for several systems.^{172–174}

Effective transitional care for elderly patients therefore requires communication between transferring and receiving providers, sharing relevant information about the patient's preferences and clinical status, robust medication reconciliation, early discharge planning, and use of palliative care when appropriate.^{55,91,93} Accurate communication of medical information is fundamental in maintaining continuity of care during transfers between settings in the health care system.⁹³ A care plan should

Box 2

Components of effective care transitions

Communication between the sending and receiving clinicians, including summary of care given, patient's goals of care, updated problem lists, and baseline mental and physical function

Preparation of the patient and caregiver for what to expect at the next site of care

Reconciliation of the patient's medications prescribed before the initial transfer with the current regimen

A follow-up plan for how outstanding tests and appointments are completed

An explicit discussion with the patient/caregiver regarding warning symptoms

Updated contact telephone numbers for all parties

Data from Jones JS. Geriatric emergency care: an annotated bibliography. *Ann Emerg Med* 1992;21:835–41.

contain accurate and thoughtful medication reconciliation, arrangement of follow-up for outstanding results and necessary appointments, and discussion of warning signs necessitating emergent medical evaluation.¹¹² The patient must not be neglected and should be adequately prepared for the transition.

Sustainable Sources of Funding

Although a full discussion of the financing, funding, and payment incentives for geriatric care is beyond the scope of this article, it is an area of great importance that is worth discussing. Several strategies to improve transitional care have been proposed, but robust quality evidence supporting effective methods in transitional care is lacking. Although there is a growing movement to improve the quality-of-care metrics and research agenda, it is limited, and there is no financial incentive or accountability for transitional care in the fee-for-service Medicare reimbursement system. Federal economic quality incentives rewarding high-quality transitions could improve the paradigm and improve behaviors of clinicians and institutions. Performance measures that assess the quality of transitional care would permit comparisons between health care systems. Quality measures can determine whether or not a certain process has occurred, as well as evaluate outcomes. Few items of existing performance measures are related to transitions of care; however, there are no validated methods of measuring the quality of transitional care. During our research many articles were originated as either British or Australian studies. Other countries are making significant investments in the improvement of care for their elderly populations, and there is much we can do to increase our own contribution to this area of research. The efforts of the AGS, American College of Emergency Physicians, and SAEM should continue to create a positive impact and help create new measures and processes of care.

SUMMARY

We completed a review of more than 200 articles related to geriatric transitions to EDs. Transitions analyzed included patients presenting to the ED to the time of disposition. Particular attention was paid to transitions from NHs to the ED. Patients aged 65 years and older represent a growing segment of patients treated in US EDs. This population poses specific challenges of transitional care related to complex medical comorbidities, dependence on others for daily living activities, polypharmacy, and a higher frequency of transitions. Elderly patients transferring through the ED are at a higher likelihood for adverse events and readmission. Communication issues were frequently identified as central to adverse outcomes and complications with transitions. Several recommendations and interventions are shown to be effective in improving communications and transitions. Improving transitional care for these patients will be an area of increasing focus because of increasing demands for elderly emergency care. We recommend that emergency providers and NHs consolidate transitional care planning by developing strategies that implement this evidence. We also support the further development of metrics for transitional care and sustained research and funding agendas supporting the needs of elderly patients in the ED.

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