Published in final edited form as:
J Am Geriatr Soc. 2014 March ; 62(3): 525–528. doi:10.1111/jgs.12699.

A Modern-Day Purgatory: Older Emergency Department Patients with Non-Operative Injuries

Timothy F. Platts-Mills, MD,
Department of Emergency Medicine, University of North Carolina Chapel Hill, 170 Manning Drive, CB #7594, Chapel Hill, NC 27599-7594, tplattsm@med.unc.edu, Phone: 919-966-7315, Fax: 919-966-7193

Scott T. Owens, MD, MPH, and
Department of Emergency Medicine, University of California San Francisco, Fresno

J. Marvin McBride, MD
Department of Medicine, Division of Geriatrics, University of North Carolina, Chapel Hill

Abstract

Older adults frequently present to the emergency department (ED) with injuries that do not require operative treatment but are sufficiently severe to make it unsafe for them to return home. These patients typically do not meet criteria for an 'inpatient' hospital admission. However, because of the limited reimbursement for observation patients, admitting physicians are often reluctant to accept these patients in to observation. Admission to a skilled nursing or assisted living facility from the ED or rapid access to additional in-home care is also often difficult or impossible. As a result, older patients with non-operative injuries often spend a long time in the ED waiting for an appropriate disposition. We describe the challenges of identifying an appropriate disposition for these patients, the consequences for patients, and some potential solutions to this commonly encountered problem.

Keywords

Geriatrics; Injury; Emergency Treatment

INTRODUCTION

A 92-year-old female with a history of stroke was seen in an outside emergency department (ED) with neck pain after falling forward out of her wheelchair. The patient was diagnosed with a broken neck, with fractures of bilateral lamina of C1 and a type 3 odontoid fracture. She was transferred to our ED for further evaluation and treatment, arriving at 7 p.m. on a Wednesday evening. The patient was seen by neurosurgery, who recommended a cervical collar and follow-up in clinic in four weeks. At midnight, a hospitalist was called for admission based on patient, family, and emergency physician concerns about pain control

Correspondence to: Timothy F. Platts-Mills.
Offprints: Offprints will not be available from the author

and the need for increased assistance with bathing and toileting. The hospitalist evaluated the patient but recommended discharge because the patient did not meet criteria for inpatient admission. The hospitalist suggested that speech therapy and physical therapy evaluations might be useful to guide the family on how to care for the patient. Following the arrival of the speech and physical therapists to the hospital on Thursday morning, the patient was seen and it was determined that the patient could swallow liquids and food safely but not sit up without severe pain. The hospitalist service was re-contacted for admission, and33 hours after her fall, and 23 hours after arriving at our ED, the patient was placed in a hospital bed with the status of admission vs. observation pending administrative review.

Adults aged 65 years or older make more than 4 million injury-related visits to United States (US) EDs each year,[1] and the number of injuries in older adults will likely increase over the next two decades.[2,3] A substantial portion of these injuries result in new functional limitations that prevent the patient from returning home safely without additional assistance. From the ED there are four possible next steps for an older adult with a new functional limitation due to injury: admission to the hospital as an inpatient; placement into the hospital under observation status; discharge to an alternative setting; or discharge home with additional support. However, for most patients there are substantial obstacles to each of these options which result from policies defining inpatient admissions, financial disincentives for placement into the hospital under observation status, and limited access to alternative settings or additional support at home.[4] We describe the challenges that older adults face when they experience an injury resulting in a new functional limitation (Table) and describe potential solutions to these challenges, including those that might result from the development of Accountable Care Organizations (ACOs).

Why Admission is Not an Option

Medicare only pays for inpatient hospital care that is “medically necessary” and follows McKesson’s InterQual Level of Care guidelines to determine whether a patient meets intensity of service and severity of illness criteria for acute inpatient admission. These guidelines were first published in 1978 based on physician input in an attempt to reduce Medicare payments for unnecessary hospitalizations; the guidelines are revised regularly but the purpose and approach are unchanged.[5] (Hospitals purchase a license to access and use these guidelines; they are not publicly available.) Although most patients with injuries requiring surgery (e.g., hip fractures) meet inpatient criteria, those with non-operative injuries do not usually meet the intensity of services criteria needed to bill for an inpatient admission. Even an older adult with a cervical spine fracture does not meet inpatient criteria if the patient does not have neurologic deficits and the fracture does not require surgery. The intensity of services criteria can be met by identifying a concurrent condition such as infection or dehydration or demonstrating the inability to manage pain with oral medications. But such admissions must be supported by objective evidence, and justification for the admission lasts only as long as the condition persists.

Compliance with inpatient admissions criteria is enforced by Recovery Auditor Contractors, groups which review inpatient admissions to determine if they meet criteria. When admissions not meeting criteria are identified, hospitals must reimburse Medicare.[6] Recent

changes to the Medicare Hospital Prospective Payment System identify a hospitalization spanning two midnights as part of the criteria for defining an inpatient stay,[7] but medical necessity remains an additional criteria and it is unclear if this new rule will substantially change whether older adults with non-operative injuries can be classified as inpatients. The inpatient criteria may also lead to over testing and over diagnosis, a recognized problem for some conditions in hospitalized older adults,[8] and expose patients to unnecessary therapies and associated risks.

Up to one-third of older adults with non-operative injuries will experience a decline in their capacity for physical function over the ensuing months.[9–11] Often patients and families are aware that the same event which doesn't meet criteria for admission may be a life-changing one, and this awareness adds to their confusion and distress. In the new era of patient-centered care, one wonders how the criteria which define conditions under which Medicare will pay hospitals for an inpatient admission might be different if patients or patient advocates contributed to their development. But of course there are boundaries to the reach of the patient-centered care movement, and perhaps this is one of them.

The Price of Observation

Patients who fail to meet inpatient admission criteria may still be placed in a hospital bed under observation. Observation stays are increasingly common for Medicare patients, probably at least partly because of the enforcement of the inpatient criteria by the Recovery Auditor Contractors.[12] But because hospitals are limited to billing for the first 24 hours of care for observation patients, patients who stay more than one day in observation create a financial liability for the hospital. Herein lies the source of the tension between emergency physicians and admitting physicians regarding patients not meeting inpatient criteria. Emergency physicians work with a limited number of beds and are paid the same amount to care for a patient who occupies a bed for 24 hours as for a patient who occupies a bed for 4 hours. Once they have completed the diagnostic work and initiated any indicated therapies, they would like patients who can't go home to be moved to a bed in the hospital as soon as possible so that they can initiate care for the next patient in the waiting room. This is more than just a perceived need of the emergency provider: prolonged ED stays are a major contributor to ED crowding which has been associated with delays in treatment[13,14] and increased in-hospital mortality[15].In contrast, in most settings hospital administrators and admitting physicians do not want to admit patients to "observation" status, especially patients who are likely to be in the hospital for several days before a safe place to send them can be identified. They would rather spend the extra time identifying an alternative site of care while the patient is still in the ED. The patient is left in purgatory: exposed to a 'purification' process in the ED characterized by little rest and few comforts while the physicians wrestle over the disposition. Being on a stretcher in a noisy and brightly lit environment for long periods of time is not just unpleasant; the long stays experienced by older ED patients[16] put them at increased risk for pressure ulcers[17] and delirium due to sleep deprivation[18].

Although usually not known to patients at the time of the placement decision, observation can be expensive for patients, because they are responsible for a 20% copayment on hospital

services provided during their stay. For longer stays this copayment will generally exceed the $1,184 deductible for hospital charges that a patient pays if admitted as an inpatient. Further, under traditional Medicare, payment for a skilled nursing facility stay is only possible when the patient has had a three-day qualifying stay as an inpatient within the previous 30 days. The three-day rule sets a threshold for defining medical need that must be met for Medicare to pay for skilled nursing care in the same way that the admission criteria set a threshold for allowing a patient to be admitted to the hospital. However, the three-day rule is a very blunt measure of skilled nursing care need and creates a formidable obstacle for injured older patients who generally don't need inpatient care but often do need a substantial period of skilled nursing facility care in order to recover.

Patients with a Medicare Advantage plan may be able to obtain a benefit exception for skilled nursing facility care without a three-day qualifying stay, and Medicaid beneficiaries may be able to go directly to a nursing home for non-skilled care, but less than half of older adults have these forms of coverage.[19] Private pay for skilled nursing care is also theoretically an option for those with adequate resources, but most skilled nursing facilities will not accept a private pay patient without a substantial upfront payment. Additionally, arranging transfer to a skilled nursing facility from the ED is difficult because of the scarcity of open beds in these facilities, and when beds are available, the financial and medical review required by these facilities often takes more than a day to complete.

Supporting a Return Home

For injured older adults who have sufficient resources, but do not require intensive medical care, recovery at home is probably the best option. A return home avoids exposure to the tethering that characterizes hospital admission for older adults[20] and to the risk of hospital-associated disability,[21] delirium,[22] and infection[23]. Returning home also optimizes the potential for the patient to remain engaged with their family and community, and allows health care resources to focus on physical therapy and rehabilitation. Ensuring a safe and supported return home in a timely manner requires vision and time on the part of the treating physician to anticipate and address the challenges of the early recovery period. The safe return home is also easier to achieve when a social worker or case manager is available to identify resources to assist the patient and when a primary provider who knows the patient can review the decision and confirm the availability of follow-up care. The contribution of a social work to geriatric emergency care is increasingly recognized; the ability of emergency providers to reach the patient's primary provider varies widely across health systems and providers but is often not possible in the middle of the night.

Unfortunately, many injured older adults cannot immediately access the level of in-home support needed to safely return home. Medicare provides funding for limited use of short-term skilled nursing services at home, but this care generally requires several days to arrange and the patient must be certified as homebound by a physician. "Hospital at Home" - type programs provide services in the home that have traditionally only been available in the inpatient setting, but these programs currently are limited to some Veteran's Affairs programs and a few Medicare Advantage pilot programs.[24] For some conditions, Hospital at Home may provide equivalent or perhaps better outcomes compared to inpatient care;[25,26]

its value for recovery after injury in older adults has not been studied. Additionally, traditional Medicare coverage for physician home visits and home health skilled nursing is inadequate to support such intensive programs and still does not address the need for enhanced personal care services to support basic tasks such as feeding and toileting.

Paths out of Purgatory

One way to fill this gap in the continuum of care would be to modify the criteria used to determine if an inpatient admission is warranted. The InterQual guidelines used by Medicare define inpatient criteria without consideration of cognitive and functional status. While a broken ankle may not warrant admission for a cognitively intact and otherwise healthy young adult, perhaps it should for a person with moderate dementia and poor balance who is no longer able to perform her activities of daily living as a result of the injury.[27] But expanding the criteria for inpatient admissions is difficult to justify, because most injured older adults do not need the level of care provided in the hospital.

ED based observation units provide another partial solution to the problem. Observation units are found in one third of US EDs, tend to be quieter than the often unforgiving environment of the ED, and allow providers to be reimbursed for the additional care provided.[28] However, observation units are designed mainly for patients who fit into clearly defined protocols of care (e.g. asthma, chest pain) and who need a short period of additional monitoring and therapy before going home. The observation unit can function as a temporary shelter for an injured older adult,[29] but in most cases difficult decisions will still need to be made regarding the site of further care. Establishing partnerships between ED observation units and local assisted living facilities might help to expedite the transition for patients with the ability to pay for this resource, but this is not a solution for patients with limited financial resources.

Another solution would be to expedite access to less costly and more rehabilitation-friendly settings. Barriers to timely placement of patients in skilled nursing facilities include limited intake hours and the need for extensive financial reviews. Changes both in policy and additional resources would be needed to overcome these barriers. Specifically, coverage of short term access (e.g. up to one week) to skilled nursing care directly from the ED might facilitate the recovery period for these patients at a relatively low cost in a similar manner to respite care.[30] Hospital affiliated skilled nursing facility beds or ‘swing beds,’ which can provide either acute or skilled nursing facility care, have the potential to support a rapid transition from the ED, but are unpopular because they tend to be less profitable than higher intensity care beds. The availability of these beds is also restricted in some states by requiring a Certificate of Need.[31] Rapid access to home health care by health aides or nurses would make it possible for some older patients to go home directly from the ED and would likely be the simplest and most cost-effective solution for these patients. Emergency physicians, hospitalists, and trauma surgeons can each play a role in encouraging and working with hospital administrators to build the capacity of hospitals to provide timely transitions to post-hospital care for older adults.

The Accountable Care Organization (ACO) framework might support a more streamlined process by which patients are transferred from the ED to a skilled nursing facility or obtain access to in-home services. The ACO's Shared Savings Program compensates providers for changing the delivery of medical care in ways that eliminate redundancies and reduces costs. If holding open a few skilled nursing facility beds for direct admissions from the ED results in Medicare savings by avoiding unnecessary hospital stays, then some portion of those savings might be given back to the facility to cover the cost of keeping the beds available. The ACO framework might also create incentives for procedures that would expedite the completion of the medical and financial review required to transfer a patient to a nursing home or make 24-hour home health aides available. More generally, ACOs may provide an opportunity to shift the role of the ED within health systems from hospital gatekeeper to a hub from which both inpatient and outpatient dispositions can be arranged, benefitting patients and streamlining health care.

Older adults who present to the ED with an acute injury often find themselves in a "can't go home, can't be admitted" purgatory. These patients frequently spend a long time in the ED while the emergency provider attempts to convince the admitting physician to accept a patient under observation status or attempts to arrange a safe discharge home or to a nursing facility. ACOs may be incentivized to address some of these problems, but until ACOs are widely adopted or policy changes are made to facilitate the transition of older patients to non-hospital care settings, older patients with non-operative injuries are likely to continue to suffer longer waiting periods in the ED while physicians try to manage a problem which the current system is poorly designed to address.

Acknowledgments

Dr. Platts-Mills is supported by Award Number K23AG038548 from the National Institute on Aging of the National Institutes of Health. The content is solely the responsibility of the authors and does not necessarily represent the official views of the National Institutes of Health. We thank Jay Pomerantz, MD, Tim Carey, MD, MPH, and Jonathan Oberlander, PhD for their comments.

References

1. Carter MW, Gupta S. Characteristics and outcomes of injury-related ED visits among older adults. Am J Emerg Med. 2008; 26:296–303. [PubMed: 18358940]
2. Dellinger AM, Stevens JA. The injury problem among older adults: Mortality, morbidity and costs. J Safety Res. 2006; 37:519–522. [PubMed: 17140602]
3. Platts-Mills TF, Hunold KM, Esserman DA, et al. Motor Vehicle Collision-related Emergency Department Visits by Older Adults in the United States. Acad Emerg Med. 2012; 19:821–827. [PubMed: 22724382]
4. Ouslander JG. A crack in the system. J Am Geriatr Soc. 2010; 58:1593–4. [PubMed: 20942875]
5. Mitus AJ. The birth of InterQual: Evidence-based decision support criteria that helped change healthcare. Prof Case Manag. 2008; 13:228–233. [PubMed: 18636008]
6. Robin DW, Gershwin RJ. RAC attack--Medicare Recovery Audit Contractors: What geriatricians need to know. J Am Geriatr Soc. 2010; 58:1576–1578. [PubMed: 20662954]
7. Federal Register. Department of Health and Human Services. [Accessed September 19th, 2013] Medicare Program; Payment Policies Related to Patient Status. at http://www.gpo.gov/fdsys/pkg/FR-2013-08-19/pdf/2013-18956.pdf
8. Woodford HJ, George J. Diagnosis and management of urinary tract infection in hospitalized older people. J Am Geriatr Soc. 2009; 57:107–114. [PubMed: 19054190]

9. Shapiro MJ, Partridge RA, Jenouri I, et al. Functional decline in independent elders after minor traumatic injury. Ann Emerg Med. 2001; 8:78–81.
10. Wilber ST, Blanda M, Gerson LW, et al. Short-term functional decline and service use in older emergency department patients with blunt injuries. Ann Emerg Med. 2010; 17:679–686.
11. Platts-Mills TF, Burke GF, Lee YM, et al. Pain and interference of pain with function and mood in elderly adults involved in a motor vehicle collision: A pilot study. Exp Aging Res. 2012; 38:330–343. [PubMed: 22540386]
12. Feng Z, Wright B, Mor V. Sharp rise in Medicare enrollees being held in hospitals for observation raises concerns about causes and consequences. Health Aff (Millwood). 2012; 31:1251–1259. [PubMed: 22665837]
13. McCarthy ML, Zeger SL, Ding R, et al. Crowding delays treatment and lengthens emergency department length of stay, even among high-acuity patients. Ann Emerg Med. 2009; 54:492–503. e4. [PubMed: 19423188]
14. Pines JM, Hollander JE. Emergency department crowding is associated with poor care for patients with severe pain. Ann Emerg Med. 2008; 51:1–5. [PubMed: 17913299]
15. Bernstein SL, Aronsky D, Duseja R, et al. The effect of emergency department crowding on clinically oriented outcomes. Acad Emerg Med. 2009; 16:1–10. [PubMed: 19007346]
16. Aminzadeh F, Dalziel WB. Older adults in the emergency department: A systematic review of patterns of use, adverse outcomes, and effectiveness of interventions. Ann Emerg Med. 2002; 39:238–2347. [PubMed: 11867975]
17. Baumgarten M, Margolis D, Berlin JA, et al. Risk factors for pressure ulcers among elderly hip fracture patients. Wound Repair Regen. 2003; 11:96–103. [PubMed: 12631296]
18. Mistraletti G, Carloni E, Cigada M, et al. Sleep and delirium in the intensive care unit. Minerva Anestesiol. 2008; 74:329–333. [PubMed: 18500209]
19. Halpert AP, Pearson SD, Reina T. Direct admission to an extended-care facility from the emergency department. Eff Clin Pract. 1999; 2:114–119. [PubMed: 10538259]
20. Brown CJ, Redden DT, Flood KL, et al. The underrecognized epidemic of low mobility during hospitalization of older adults. J Am Geriatr Soc. 2009; 57:1660–1665. [PubMed: 19682121]
21. Covinsky KE, Pierluissi E, Johnston CB. Hospitalization-associated disability: “She was probably able to ambulate, but I’m not sure”. JAMA. 2011; 306:1782–1793. [PubMed: 22028354]
22. Pompei P, Foreman M, Rudberg MA, et al. Delirium in hospitalized older persons: outcomes and predictors. J Am Geriatr Soc. 1994; 42:809–15. [PubMed: 8046190]
23. Swartz MN. Hospital-acquired infections: Diseases with increasingly limited therapies. Proc Natl Acad Sci U S A. 1994; 91:2420–2427. [PubMed: 8146133]
24. Leff B, Burton L, Mader SL, et al. Comparison of functional outcomes associated with hospital at home care and traditional acute hospital care. J Am Geriatr Soc. 2009; 57:273–278. [PubMed: 19170781]
25. Shepperd S, Harwood D, Jenkinson C, et al. Randomised controlled trial comparing hospital at home care with inpatient hospital care. I: Three month follow up of health outcomes. BMJ. 1998; 316:1786–1791. [PubMed: 9624068]
26. Aimonino Ricauda N, Tibaldi V, Leff B, et al. Substitutive “hospital at home” versus inpatient care for elderly patients with exacerbations of chronic obstructive pulmonary disease: A prospective randomized, controlled trial. J Am Geriatr Soc. 2008; 56:493–500. [PubMed: 18179503]
27. Ouslander JG, Maslow K. Geriatrics and the triple aim: Defining preventable hospitalizations in the long-term care population. J Am Geriatr Soc. 2012; 60:2313–2318. [PubMed: 23194066]
28. Wiler JL, Ross MA, Ginde AA. National study of emergency department observation services. Acad Emerg Med. 2011; 18:959–965. [PubMed: 21883638]
29. Moseley MG, Hawley MP, Caterino JM. Emergency department observation units and the older patient. Clin Geriatr Med. 2013; 29:71–89. [PubMed: 23177601]
30. Mason A, Weatherly H, Spilsbury K, et al. The effectiveness and cost-effectiveness of respite for caregivers of frail older people. J Am Geriatr Soc. 2007; 55:290–299. [PubMed: 17302669]
31. Hellinger FJ. The effect of certificate-of-need laws on hospital beds and healthcare expenditures: An empirical analysis. Am J Manag Care. 2009; 15:737–744. [PubMed: 19845425]

Table

Disposition options and associated challenges for older emergency department patients with non-operative injuries.

Disposition	Challenges
Inpatient admission	• Most patients don't meet inpatient criteria • Efforts to meet criteria may lead to overtesting and overdiagnosis
Observation	• Discouraged by administrators in some care settings because not profitable • Patients must pay large co-pays
Skilled nursing facility	• Regulatory documents often require at least a full work day to complete • For most patients, cost of skilled nursing facility care not covered without three-day qualifying inpatient stay
Assisted living	• Difficult to identify a bed in <24 hours • Generally requires large upfront payment by patient
Discharge home	• Patients often require additional in-home care which is expensive and difficult to identify in <24 hours