Healthcare Transitions of Older Adults: An Overview for the General Practitioner

LIDIA VOGNAR, MD; NADIA MUJAHID, MD

ABSTRACT

Healthcare transition refers to the care "hand-off" of a patient among providers and treatment settings. Older adults experience more frequent care transitions than younger patients due to the presence of co-morbidities, cognitive impairment, increased dependence and medication use. Hospitalization and subsequent readmission after discharge to a nursing home represents a unique care transition situation. It is estimated that as many as 60% of readmissions from nursing homes can be avoided. Poor communication between hospital and nursing home staff; delayed, inaccurate, or missing discharge summaries; lack of accurate medication reconciliation; pending test results; inappropriate follow-up; and poor education of patient and families all contribute to poor care transition quality, and increase the probability of rehospitalization. Interventions for improved care transitions are suggested. They focus on patient and family-centered care effectiveness, minimizing adverse events, and increasing timely, accurate and complete communication.

KEYWORDS: Healthcare transitions, nursing home residents, hospital readmission rates

INTRODUCTION

A healthcare transition occurs when a patient moves among providers or treatment settings coincident with a change in a patient's condition or health care needs. These care settings include hospitals, nursing facilities (NFs), rehabilitation centers, and home.[1] Effective and safe care transitions depend upon a set of actions designed to ensure the coordination and continuation of healthcare as patients transfer between locations and levels of care.[2] Optimal care transitions should include pre-hospital discharge activities, immediate post hospital discharge follow up at the next care setting, and should be part of a broader, integrated, multidisciplinary care plan.[3]

The annual incidence of care transitions from nursing homes (NHs) to emergency departments (EDs) range from 23-60% in the U.S.[4] Adults aged 65 years and above account for more than 400 ambulatory visits, 300 ED visits, 200 hospital admission, 46 admissions to SNFs, and 106 home care admissions per 1000 persons in 2000.[1]

Advancing age and more complex disease are associated with frequent care transitions because of the increased likelihood of co-morbidities, cognitive impairment, increased dependence and polypharmacy; a variety of providers is needed to address the complex needs, which in turn can result in fragmented care, exposure to adverse events, and increased hospital readmissions.[5] Seventy-four percent (73.7) of older adults with dementia have a care transition from hospital to NH: the re-hospitalization rate is 23% annually.[6] A review of more than 25,000 admissions of Medicare beneficiaries in Rhode Island revealed that patients with dementia were 20% more likely to be readmitted within 30 days of discharge than those without cognitive impairment.[7]

Care transitions are expected to rise in frequency and complexity as the adult population ages[3] and as older adults increasingly use SNF for the recovery of independence.[4] The care transition to and from SNF is supported by appropriate communication of health information between these healthcare settings.[8]

CARE TRANSITIONS

Care transitions are generally preceded by a change in an individual's condition that triggers an evaluation for possible transfer of care to another setting. The OPTIC (Older Persons' Transitions In Care) study demonstrated that the most common trigger events in the NH setting were falls with injury (30.9%), changes in physical condition (14.7%), and gastrointestinal distress (11.8%).[4]

Essential elements of effective care transitions that are vital to ensuring quality include providers' communications regarding discharge planning, preparation of the patient and family for the transition of care, reconciliation of medications, a follow-up care plan, patient education regarding self-management[3], and the involvement of patient and family.[5] Poorly executed care transitions can result in adverse outcomes or events[2], such as fragmented medical care, delayed diagnosis and treatment, medication errors, unnecessary utilization of emergency room and hospital services, and duplication of testing.[1] Fear, confusion, and anxiety are often experienced by patients and families, which lead to poor patient satisfaction. The risk for potentially preventable adverse events should be identified at each care transition point and be actively addressed whenever possible to ensure the likelihood of a quality care transition.[3]

OUTCOMES OF POOR QUALITY CARE TRANSITIONS

Readmissions

It is known that one in five Medicare beneficiaries discharged from hospitals will be readmitted within 30 days, at a cost of $26 billion annually.[9] Several performance measures aimed at reducing avoidable hospitalizations have been proposed by the Centers for Medicare and Medicaid Services (CMS).[10,11] In 2010, the Patient Protection and Affordable Care Act imposed penalties related to hospital readmission rates. Penalties reduce Medicare payments to hospitals with higher than average rates of rehospitalization within 30 days of discharge when the hospitalization is for acute myocardial infarction, pneumonia, or congestive heart failure. Penalties are scheduled to increase and the list of conditions to expand in fiscal year 2015.[7] It is estimated that avoiding 5.2% of preventable Medicare readmissions could save approximately $5 billion annually.[12]

Hospitalization of NH residents and hospital readmissions of patients sent to SNFs for acute rehabilitation represent a unique care transition that is affected by many different factors, including both facility and patient specific characteristics.[10] Readmissions from the NH happen most frequently due to infections, fractures, cardiovascular, and gastrointestinal disorders.[13,14] One study reported that infections accounted for 25% of NH readmissions. Facility characteristics, such as nursing staff patterns, NH size, and percentage of Medicaid and Medicare reimbursed days also influence NH residents' risk of hospitalization.[13]

Sixty percent of hospital readmissions from NHs were identified as potentially avoidable.[15] Medication errors, infections, and injuries represented the majority of potentially avoidable hospitalizations, indicating that measures aimed at infection control, falls, medication reconciliation, improved inter-provider communication, timely discharge summaries, follow-up plans, and patient and family education on care transitions [5] may help reduce readmission rates.[15]

Adverse Events

An adverse event (AE) is defined as harm resulting from medical management rather than from the disease process.[16] About one in five[17] patients discharged from hospitals will experience an AE within 3 weeks of discharge.[16] More than half of post discharge AEs occur because of poor communication among providers, most commonly regarding medications and test follow-up errors.[18] Test follow-up errors, defined as having a test result noted as pending at the time of discharge in the inpatient medical record but not acknowledged in the outpatient chart, have come to the attention of the Agency for Healthcare Research and Quality, as well as to large malpractice insurers.[18] It has been shown that 41% of discharged patients had pending test results, and that a test follow-up error occurred in 8% of discharged patients.[18] Fifty-four percent of patients experienced one or more medication error on admission to hospitals, with 39-45% of these considered dangerous to the patient.[17]

Poor communication between hospital and NH staff, delayed, inaccurate, or missing discharge summaries on discharge, lack of medication reconciliation, pending test results, lack of a follow-up care plan, and poor education of patient and family regarding expectations at the next care setting are the most common reasons contributing to AE occurrences during care transitions. Patients with low health literacy, non-English language speakers (or English as a second language), who have cognitive impairment, limited social support, and a lack of resources, further contribute to the likelihood of an AE occurrence. Healthcare system-specific barriers, such as specialty care provided in silos, create further ambiguity about who is responsible for the patient; these factors lead to fragmented care and also possibly increase AE occurrence.[17,19]

INTERVENTIONS TO IMPROVE CARE TRANSITIONS: NATIONAL

Interventions to improve care transitions often focus on readmission rates and cost containment for inpatient services, but there are domains in which beneficial interventions, such as care effectiveness, minimizing AE, reducing stress of residents, families, and staff[4], timeliness, and patient- and family-centered care[3] could improve care transitions.[9] Interventions include profession-oriented interventions, organizational interventions, and patient-family interventions.[5]

To aid in the development of profession-oriented interventions, the Transitions of Care Consensus Conference (TOCCC), which aimed to create successful care transitions, developed standards for the transition of care.[16] TOCCC standards include coordinating clinicians, providing a care plan/transition record, having standard communication formats, accounting for transition responsibility, timeliness, community standards, and including patients and their families in the transition process.[16] The TOCCC standards insist that clinician communication happen whenever patients are at a transition of care. The standards list a minimal set of data elements that should be part of the transition record or discharge summary, including the principal diagnosis, problem list and medication list, the name of the transferring physician, the patient's cognitive status and all pending tests.[16,19]

It is important to realize that discharge summaries may be the only information regarding hospital events, medication changes, follow-up appointments, and pending tests that a provider in the community or NH has about a discharged patient. However, 75% of primary care physicians have not received a discharge summary by the first post-hospitalization visit, and often discharge summaries are incomplete or inaccurate, leaving providers at a total loss.[19]

The Community–based Care Transitions Program (CCTP) is an organizational intervention created by the Affordable Care Act to improve quality of care and reduce readmission rates for high-risk Medicare beneficiaries.[9] Community involvement is encouraged through formation of

community-based organizations (CBOs) that will use care transition services to manage Medicare patients' transitions and improve the overall quality of care.[9]

Patient-family interventions are also of high value, as these individuals often wish for more education and a coordinated approach to care transitions.[2] Patients and families are often left uninformed about what to expect[2], often feel that transfer was initiated too early and note a lack of preparedness for the transition from total care at the acute care site to near self-care at the NH.[2]

RHODE ISLAND

Healthcentric Advisors (the Medicare Quality Improvement Organization for Rhode Island) developed Safe Transitions Best Practice Measures for improving care transitions of NH residents.[20] This project created statewide standards for cross-setting care transitions, resulting in sustainable systems change and overall improved patient safety.[20] These standards have been widely accepted and incorporated into health plans across multiple care settings. They have contributed to a decrease in the readmission rate of 8.7 per 1000 Medicare beneficiaries, reflecting 1086 fewer patients admitted to RI hospitals with a $10.4 million cost avoidance over the last 3 years.[20] In addition, RI has a mandated continuity of care form that has led to dramatic improvement in cross-setting communication since inception in 2009, and our readmission rates have been dropping rapidly (20% decline in the last three years).

CONCLUSION

Poorly executed care transitions have been associated with increased hospital readmission rates, increased AEs, poor patient satisfaction, and negative overall patient health outcomes. Older adults, and NH residents, in particular, are identified as especially vulnerable, and at risk for increased health care transitions, hospital readmissions, and AEs. In RI, patients with dementia, who account for the majority of NH residents, are responsible for 20% of 30-day readmissions. Interventions aimed at improving care transitions should be implemented at every care transition point, and should follow the standards set out by the Transitions of Care Consensus Conference (TOCCC). Adherence to these standards will result in improved coordination and communication of clinicians, comprehensive discharge summaries, timeliness, as well as education and inclusion of patients and their families in the transition process.

Table 1. Safe Transitions Best Practice Measures, Rhode Island

Best Practice #1	**Interventions implemented for residents at highest risk for unplanned transfer** These interventions are targeted at residents with depression, falls, and > 2 hospitalizations in the last 12 months.
Best Practice #2	**Clinical information sent with emergency department (ED) referrals** Information should include the resident's baseline status, reason for referral, medications, advance directives, and phone number connecting the ED to nursing home (NH) staff who can address questions about resident
Best Practice #3	**Real time verbal information provided to ED or hospital clinicians** Clinical or clerical NH staff should be readily available to address the ED or hospital clinicians' specific questions regarding the transferred resident.
Best Practice #4	**Medication reconciliation completed after ED or hospital discharge** Medication reconciliation includes the review of the patient's discharge medication regimen, comparing the discharge medication regimen to the prior medication regimen to identify and resolve any discrepancies.
Best Practice #5	**Structured communication used for clinical questions to physicians** A framework for inter-provider discussions is recommended to ensure high urgency concerns are addressed efficiently.
Best Practice #6	**End-of-Life care discussed with residents** Conversations should take place regarding end -of -life topics such as comfort care, do not hospitalize, hospice, general goals of care.
Best Practice #7	**Effective education provided to residents prior to NH discharge** Education should incorporate the testing of resident's understanding, and should include the reason for the NH stay; also includes medication changes, recommended follow up appointments and tests, and condition-specific "red flags" to prompt the resident to seek attention.
Best Practice #8	**Written discharge instructions provided to residents prior to NH discharge** This instruction should include the reason for the NH stay, all medication changes, recommended follow-up appointments, pending test results, and condition-specific "red flags" to prompt the resident to seek attention.
Best Practice #9	**Follow-up appointment scheduled prior to NH discharge** The appointment should indicate the date, time, location, and contact info for any questions.
Best Practice #10	**Summary clinical information provided to outpatient physicians at discharge** This information should include a contact number to connect the NH staff to outpatient physicians for questions.
Best Practice #11	**Residents have access to medication after NH discharge** Residents must receive enough medications after NH discharge until the end of the intended treatment course or until the first outpatient follow-up.

Acknowledgments

Stefan Gravenstein, MD, MPH, Professor of Medicine; Interim Chief, Division of Geriatrics and Palliative Care, Center for Geriatrics and Palliative Care, Case Medical Center for his expert opinion and edits.

Richard Besdine, MD, Professor of Medicine; Director, Division of Geriatrics and Palliative Medicine; Greer Professor of Geriatric Medicine, Alpert Medical School of Brown University; Professor Health Services Policy and Practice; Director, Center for Gerontology and Health Care Research, Brown University School of Public Health, also provided helpful editorial comments.

Disclaimer

The views expressed herein are those of the authors and do not necessarily reflect the views of any other party.

References

1. Coleman E. Falling Through the cracks: challenges and opportunities for improving transitional care for persons with continuous complex care needs. *JAGS*. 2003;51:549-555.
2. Jeffs L, Kitto S, Merkley J, Lyons R, Bell C. Safety threats and opportunities to improve interfacility care transitions: insights from patients and family members. *Patient prefer Adherence.* 2012;6:711-718.
3. Allen, J, Hutchinson A, Brown R, Livingston P. Quality care outcomes following transitional care interventions for older people from hospital to home: a systematic review. *BMC Health Services Research*. 2014;14:346.
4. Reid R, Cummings G, Cooper S, Abel S, Bissell L, Estabrooks C, Rowe B, Wagg A, Norton P, Ertel M, Cummings G. The older persons' transitions in care (OPTIC) study: pilot testing of transition tracking tool. *BMC Health Serv Res*. 2013;13:515.
5. Storm M, Siemsen M, Laugaland K, Dyrstad D, Aase K. Quality in transitional care of the elderly: Key challenges and relevant improvement measures. *Int J Integr Care*. 2014.
6. Callahan C, Arling G, Tu W, Rosenman M, Counsell S, Stump T, Hendrie H. Transitions in care among older adults with and without dementia. *JAGS.* 2012;60(5):813-820.
7. Rhode Island Hospital. Rhode Island Hospital Study Finds Medicare Patients with Dementia Nearly 20 Percent More Likely To Be Readmitted Within 30 Days of Discharge. Newsroom, www.rhodeuslandhospital.org/Newsroom/News. Last accessed 8/27/2014.
8. AAse K, Laugaland K, Dyrstad D, Storm M. Quality and safety in transitional care of elderly: the study protocol of a case study research design (phase 1). *BMJ Open*. 2013; 3(8).
9. Centers for Medicare and Medicaid Services. Community- Based Transitions Program. www.cms.gov. Last accessed 8/27/2014.
10. O'Malley J, Caudry D, Grabowski D. Predictors of nursing home residents' time to hospitalization. *Health Serv Res*. 2011;46(1 Pt 1):82-104.
11. Ogunneye O, Rothberg M, Friderici J, Slawsky M, Gadiraju V, Stefan M. The association between skilled nursing facility care quality and 30-day readmission rates after hospitalization for heart failure. *American journal of medical quality.* 2014.
12. O'Connor M, Hanlon A, Bowels K. Impact of frontloading of skilled nursing visits on the incidence of 30-day hospital readmission. *Geriatric Nursing.* 2014.
13. Carter M, Porell F. Variations in hospitalization rates among nursing home residents: the role of facility and market attributes. *The Gerontologist*. 2003; 175-191.
14. Kruger K, Jansen K, Grimsmo A, Eide G, Geitung J. Hospital admissions from nursing homes: rates and reasons. *Nurs Res Pract*. 2011; 2011: 247623.
15. Spector W, Limcangco R, Williams C, Rhodes W, Hurd D. Potentially avoidable hospitalizations for elderly long- stay residents in nursing homes. *Medical Care.* 2013;51(8):673-681.
16. Snow V, Beck D, Budnitz T, Miller D, Potter J, Wears R, Weiss K, Williams M. Transitions of Care Consensus Policy Statement American College of Physicians-Society of General Internal Medicine- Society of hospital Medicine- American Geriatrics Society- American College of Emergency Physicians-Society of Academic emergency Medicine. *J Gen Intern Med*. 2009; 24(8): 971-976.
17. Kripalani S, Jackson A, Schnipper J, Coleman E. Promoting effective transitions of care at hospital discharge: a review of key issues for hospitals. *Journal of Hospital Medicine.* 2007; 2:314-323.
18. Roy C, Poon E, Karson A, Ladak-Merchart Z, Johnson R, Maviglia S, Gandhi T. Patient safety concerns arising from the results that return after hospital discharge. *Improving patient care*. 2005.
19. Alper E, O' Malley T, Greenwald J. Hospital discharge and readmission UpToDate, www.uptodate.com, last accessed 8/25/2014.
20. Chase L, Butler K. Safe transitions best practice measures for nursing homes. Healthcenric Advisors, Quality Improvement Organizations, Centers for Medicare and Medicaid Services Report, 2014.

Authors

Lidia Vognar, MD, Staff Geriatrician at Providence VAMC, Assistant Professor of Medicine, Division of Geriatrics and Palliative Medicine, Alpert Medical School of Brown University.

Nadia Mujahid, MD, Assistant Professor of Medicine, Division of Geriatrics and Palliative Medicine, Alpert Medical School of Brown University.

Disclosures

None

Correspondence

Lidia Vognar, MD
Providence VAMC
830 Chalkstone Ave
Providence RI 02908
310-619-0127
lvognar@lifespan.org, Lidia.vognar@va.gov