Transitions of Care for Frail Elders: A Research Review

Prepared for Transitions of Care for Frail Elders Consensus Workshop

February 28, 2008

Rhoda Meador, Elaine Wethington
Liz Norton, Lisa Holmes, Joan Skawski, Maureen Cerniglia,
Linda Wright, Leola Rodgers

Introduction

Transitions of frail elders from home to (and from) institutional care environments, such as hospital and long-term care facilities, has a significant impact on their physical and emotional well-being. Eric Coleman (2004) defined transitional care as "a set of actions designed to ensure the coordination and continuity of health care as patients transfer between different locations or different levels of care within the same location." These transitions often magnify the impact associated with the inadequacies in the health care system.

Each year older people experience over 13 million transitions from acute or rehabilitation facilities to home. In addition, acute care is now more apt to be delivered in long-term care settings. Care that was once provided in the hospital setting is now often provided in patient's homes, physician's offices, nursing homes and in other community settings. The discharge planning needs of older adults, which are influenced by race, culture, language differences, and urban or rural locations are complex and involve many different systems.

Current discharge planning process

The discharge planning process in acute care differs from one institution to another, but the common thread is the development of a comprehensive plan for moving the patient to the next level of care. All too often, the goal is to hurriedly move the patient out of the acute care setting, and the destination is determined as much by available funding mechanisms as it is by need or desire.

The push to decrease length of stay has motivated efforts by hospital case managers and discharge planners to move patients as quickly through the system as possible. This urgency forces expediency at the cost of thorough planning. Shorter hospital stays give discharge planners less time to develop complex discharge plans and to educate patients and caregivers

Family caregivers, who provide most of older adults' long term care needs, are often left out of the decision-making process. Family caregivers can become frustrated with their exclusion in the decision-making process and their poor preparation for meeting the needs of the frail older adult once they are home.

Frail elders, who often have multiple chronic conditions and high risk factors for poor outcomes, are increasingly discharged to their homes unprepared to manage their care needs. These individuals, who are often ill-prepared for discharge, sometimes find themselves returning to the hospital emergency department due to medication mismanagement, and due to their misunderstanding of their treatment regimens and their follow-up care.

A comprehensive information management infrastructure, which could seamlessly transfer information between providers, does not exist in our current health care delivery

system. The transfer of information from hospital to the patient and to the patient's care providers is impeded by privacy considerations, as well. This information is needed by follow-up providers, the patient, the caregiver(s) and each may require it in a slightly different format and at different reading levels. Naylor (2006) states, “There is no recognized ‘point person’ in our current health care system for managing care across time, place, and profession, and little acknowledgment that individuals with chronic disabilities shift among physicians, hospitals, nursing homes and their own homes.”

Regulations and financial considerations

All of the major healthcare-related regulatory agencies and accrediting agencies require facilities to plan for discharge, including the Centers for Medicaid and Medicare (CMS), the state Departments of Health (DOH), and the Joint Commission, each having standards by which facilities are judged. These standards are intentionally broad to account for differences in capabilities at various institutions. However, if the concern with transitions in care escalates, and the industry does not rectify these issues, it is possible that these agencies will step in to further regulate the standards.

Another issue involves payment. Discharge opportunities for frail seniors are vastly limited by the available payment options. In general, Medicare and the majority of the private insurances only cover home care if it requires a skilled provider and is limited to a finite illness. Care needs for frail elders do not always fit these tight objective definitions. Consequently, care must be pieced together with multiple payment sources and typically involves multiple home care providers resulting in a fragmented plan of care. Medicare and Medicaid, who are the primary funders of long term care, provide few incentives for providing coordinated care transitions.

Care transition research

There is an abundance of research that documents the difficulties older adults and their caregivers experience during these transitions. This is a review and synthesis of the research on care transitions developed by aging-related researchers to improve the health outcomes of frail elders as they move from these institutional settings to, and from, home. This paper examines articles which are grouped into three categories. The first group of articles examines the topic of **screening and assessment tools** related to care transitions; the second group examines **the nature and effectiveness of pre- and post-discharge planning interventions** aimed at improving care transitions; and, the third group examines **research reviews of multiple interventions** related to improving care transitions.

Group 1- Research on screening and assessment tools

There are two main tools which provide a means for assessing patients' needs and the corresponding treatment: the MDS for rehabilitation and long-term care and the OASIS for home care. These tools serve two predominant purposes: to assist in tracking and quantifying care and to bill appropriately. In New York State, the Patient Review Instrument (PRI) and SCREEN are assessments used to determine the appropriate post-acute level of care and the appropriate rate of reimbursement for the long-term care provider. These tools are discreet and unrelated to one another, reinforcing the fragmented nature of our system of care.

There is research underway which evaluates assessment tools aimed at enhancing the safety of care transitions by coordinating discharge planning across care settings. The

following chart presents a summary table of these articles examining **assessment tools**, with an analysis of objectives, measures, findings and implications.

Author	Objective	Measures	Findings	Implications
Holland, et al., 2003	This study tested the predictive ability of the Probability of Repeated Admission (PRA) screen for nonroutine discharge planning (requiring new referrals for formal services).	PRA screen was administered; use of non-routine discharge planning resources and non-routine discharge disposition were determined using observation and record review planning (n=991)	The study produced very small significant evidence for the predictive ability of the PRA.	The clinical utility of using the PRA as a screen for early identification of persons who use nonroutine discharge planning is limited, although certain individual items may be useful.
Grimmer, et al. (2006)	To describe the development of a pre-discharge checklist which patients and their caregivers generated	The checklist contains some prompts for concerns, such as transportation to medical appointments after discharge or paying bills. There are spaces for additional patient specific concerns. Allows for individualization.	The authors present the checklist, but do document the benefits of its use.	Assessment could be useful, but this paper presents little evidence related to the efficacy of the assessment.
Kramer, et al. (2006)	Uniform Patient Assessment for Post-acute Care. Describes the attempt to design a uniform assessment tool for post-acute care.	Study outlines the limits of the three existing CMS assessment tools: MDS, OASIS, IRF-PAI and	None of the existing tools adequately covers the spectrum of patients and domains to be measured across care settings	Recommended the development of a comprehensive two-stage tool for use in national demonstrations

Summary

This summarized research indicates that there are some standard tools being used in a variety of settings to assess a variety of domains related to care transitions. While there is some evidence that these tools are effective, no one comprehensive assessment tool has been developed.

Questions to consider

1. What characteristics would the ideal assessment tool for care transitions possess?
2. Ideally, what settings should an assessment tool be tested in?
3. Ideally, who should be involved in the development and testing of an ideal assessment tool?

Group 2-The nature and effectiveness of pre- and post-discharge interventions

The following articles discuss interventions aimed at the development of a comprehensive transition plan either pre- or post-discharge. Effective interventions are especially important to meet the needs of frail elders, who are most likely to have complex illnesses, cognitive impairments, multiple medications, limited supports, limited income, and LTC needs that do not relate to the acute system of care and reimbursement.

Some researchers have focused their efforts on the identification and testing of effective interventions aimed at improving care transitions. The following chart presents a summary table of articles examining **pre-and post-discharge interventions**, with an analysis of objectives, measures, findings and implications.

Author	Objective	Measures	Findings	Implications

Coleman et al., 2004	Tested model "Care Transitions Intervention" involving: promoting cross-site communication, encouragement to take more active role in care, assert preferences & guidance from 'transitions coach'	Rehospitalization rates and patient surveys (n=158)	Intervention associated with some positive effects	Intervention could prove to be effective; this study establishes need for more research
Tempkin-Greener, et al., 2004	To test the hypothesis that social support is an important predictor of mortality in a frail older population receiving formal long-term care services.	Individual risk factors, program effect, and social support were assessed using statistical modeling (n=3138)	Certain aspects of informal caregiving are important factors enhancing survival in a population of frail, nursing home-certifiable individuals enrolled in a health program (PACE)	Further research is needed to better differentiate between the affective versus the instrumental dimensions of social support.
Graham, et al., 2005	To track usage and satisfaction with "Providing Assistance to Caregivers in Transition" (PACT) program, interdisciplinary case management program designed to enhance nursing home discharge planning and case management support for the transitional period following a return to the community	Utilization rates, Participant satisfaction (n=38)	Caregivers reported satisfaction with instrumental and emotional support; nursing home cooperation mixed	More work is needed to develop a broader referral base for the program.
Kane et al., 2006	Comparison of two different variants of the Program for All-	Outcomes include hospital admission, days in hospital, ER visits	PACE implemented through hospitals is more effective	Hospital-based transitions programs may result in improved outcomes for participants

	Inclusive Care of the Elderly (PACE)		than a more liberal variant, the Wisconsin Partnership Program (WPP)	
Coleman et al, 2006	Experimental trial of model “Care Transitions Intervention” involving: promoting cross-site communication, encouragement to take more active role in care, assert preferences & guidance from ‘transitions coach’	Rehospitalization rates at 30, 90 and 180 days; prevalence of same/similar diagnosis (n=750)	Intervention resulted in significant reduction in rehospitalization	“Care Transitions Intervention” featuring client coaching, cross-site communication, encouragement to take more active role in care, assert preferences is likely to result in positive outcomes
Naylor et al., 2006	Randomized trial to examine the effectiveness of an advanced practice nurse-centered discharge planning and home follow-up intervention for elders at risk for hospital readmissions	Readmissions, time to first readmission, acute care visits after discharge, costs, functional status, depression, and patient satisfaction (n=363)	Control group patients more likely than intervention group patients to be readmitted at least once; intervention group had fewer hospital days per patient; increased time to first readmission. Medicare reimbursements for health services were about twice in the control vs. intervention group.	Intervention demonstrated great potential in promoting positive outcomes for hospitalized elders at high risk for rehospitalization while reducing costs.
Friedman, et al., 2006	To determine whether participants in the Program of All-Inclusive Care for the Elderly (PACE) with an informal caregiver have a higher or lower	Rates of nursing home admission (n=3189)	Participants in PACE who lack an informal caregiver are not at higher risk of institutionalization, compared to individuals in the general population.	Further research required to ascertain whether PACE’s comprehensive formal services compensate for the lack of informal caregiving in limiting the risk for institutionalization.

	risk of nursing home admission than those without caregivers			
Hershkovitz et al., 2007	To identify factors associated with postacute rehabilitation outcome of disabled elderly patients with proximal hip fracture.	Functional ability, cognitive status, activities of daily living, depression (n=133)	Cognitive function, nutritional status, preinjury functional level, and depression were the most important prognostic factors associated with rehabilitation success of older patients with proximal hip fracture	Of these, depression and nutritional status are correctable, and early intervention may improve rehabilitation outcome.

Summary

The research indicates that interventions have been developed to address various aspects of the care transition process. In addition, the findings indicate that the interventions that address multiple dimensions involved in the transition process, (including the patient's needs/goals; the informal caregiver's needs/ goals; and financial constraints), are most effective.

Questions to consider

1. What aspects of the care transition process must be addressed in a successful intervention?
2. Ideally, who needs to be involved in care transitions?
3. What strategies might be employed to get the necessary people involved?

Group 3-Research reviews of intervention studies

The following chart presents a summary table of three research review articles on the topic of care transitions, with an analysis of objectives, measures, findings and implications.

Author	**Objective**	**Measures**	**Findings**	**Implications**
Coleman, 2006	Review of descriptive and experimental research relating to improvement of care transitions	Various	Few empirical studies aimed at improving care transitions; however, some compelling evidence that management of transitional care by advanced practice nurses made substantial difference in rehospitalization rates for some patients	Need for more empirical research
Hick et al., 2007	Review literature of experimental evidence describing interventions to manage older adults in acute care hospital settings	Various	Multidisciplinary team approach, using gerontological expertise, is recommended.	Need for more research
Mistiaen et al., 2007	Systematic, formal meta-analytic review of interventions to reduce problems of older patients discharged from hospital to home	Various	Interventions having positive impact include those that combine educational components, and pre-discharge and post-discharge interventions	Overall, limited summarized evidence that discharge planning and discharge support interventions positively effect patient health at discharge, or patient functioning, health care use and costs after discharge

Summary

These research reviews indicate that some type of care coordination leads to positive outcomes for older people who are experiencing care transitions. In addition, the

findings indicate that this coordination must address multiple dimensions involved in the transition process, including the patient's needs; the patient/family goals; and financial constraints.

Questions to consider

1. What source(s) of funding could provide for a transitions coordinator?
2. What role could CMS play to support good outcomes in care transitions?
3. What roles do Long Term Care insurance, managed Long Term Care and New York State's 'Point of Entry' programs play in:
   - reducing costs,
   - hospital readmissions, and
   - improved patient satisfaction?

References

1. Coleman, E., Smith, J.D., Frank, J.C., Min, S., Parry, C., & Kramer, A.M. (2004). Preparing patients and caregivers to participate in care delivery across settings: The Care Transitions Intervention. *Journal of the American Geriatrics Society, 52,* 1817-1825.

2. Coleman, E., Parry, C., Chalmers, S., & Min, S. (2006). The Care Transitions Intervention, Results of a randomized controlled trial. *Arch of Internal Medicine*, 1822-1828.

3. Coleman, E. (2004). Lost in transition: Challenges and opportunities for improving the quality of transitional care. *Annals of Internal Medicine, 140*, 533-536.

4. Friedman, S.M., Steinwachs, D.M, Temkin-Greener, H., & Mukamel, D.B. (2006). Informal Caregivers and the Risk of Nursing Home Admission Among Individuals Enrolled in the Program of All-Inclusive Care for the Elderly. *Gerontologist, 46,* 456-463.

5. Graham, C. Anderson, L. & Newcomer, R., (2005). Nursing Home Transition: Providing Assistance to Caregivers in Transition Program. *Lippincott's Case Management, 10(2),* 93-101.

6. Grimmer, K., Dryden, L., Puntumetakul, R., Young, A., Guerin, M., Deenadayalan, Y., & Moss, J. (2006). Incorporating patient concerns into discharge plans: Evaluation of a patient-generated checklist. *The Internet Journal of Allied Health Sciences and Practice*, 4 (2).

7. Hershkovitz A., Kalandariov Z, Hermush V, Weiss R, & Brill S. (2007). Factors Affecting Short-Term Rehabilitation Outcomes of Disabled Elderly Patients with Proximal Hip Fracture. *Archives of Physical Medicine and Rehabilitation, 88(7),* 916-21.

8. Hickman, L., Newton, P., Halcomb, E.J., Chang, E., & Davidson, P. (2007). Best Practice Interventions to Improve the Management of older People in Acute Care Settings: A literature Review. *Journal of Advanced Nursing, 60 (2),* 113-26.

9. Holland, D.E., Harris, M.R., Pankratz, V.S., Clossen, D.C., Matt-hensrud, N.N., & Severson, M.A. (2003). Prospective Evaluation of a Screen for Complex Discharge Planning in Hospitalized Adults. *Journal of the American Geriatric Society, 51.*

10. Kane, R.L., homyak, P., Bershadsky, B., & Flood, S. (2006). Variations on a Theme Called PACE. *The Journals of Gerontology Seriews A: Biological Sciences and Medical Sciences, 61,* 689-693.

11. Kramer, C. E. (2006). *Uniform Patient Assessment for Post-acute Care: Final Report*. Prepared for the Centers for Medicare & Medicaid Services and the Iowa Foundation for Medical Care, ttp://www.cms.hhs.gov/QualityInitiativesGenInfo/downloads/QualityPACFullReport.pdf

12. Mistiaen, P., Francke, AS., & Poot, E. (2007). Interventions Aimed at Reducing Problems in Adult Patients Discharged from Hospital to Home: A Systematic Meta-Review. *BMC Health Services Research, 7,* 47.

13. Moran, G., Semansky, R. Quinn, E. Noftsinger, R., & Koening, T. (2005). Evaluability assessment of discharge planning and the prevention of homelessness, Final report. Prepared for the Department of HHS, Office of the Assisitant Secretary for Planning and Evaluation, Washington, D.C., http://aspe.hhs.gov/hsp/05/discharge-planning/report.pdf

14. Naylor, M.D, Brooten, D., Campbell, R., Jacobsen, B.S., Mezey, M.D., Pauly, M.V., & Schwartz, J.S. (1999). Comprehensive discharge planning and home follow-up of hospitalized elders: a randomized clinical trial. *JAMA, 281(7),* 613-619.

15. Naylor, M.D., Ware, M.S., Kurtzman, E.T., & Pauly, M.V (2007, February). Transitions of Elders Between Long-Term Care and Hospitals. Paper commissioned for "Building Bridges: Making a Difference in Long-Term Care" AcademyHealth Colloquium sponsored by The Commonwealth Fund. Presented at 2007 Policy Seminar, Washington, D.C.

16. Tempkin-Greener, H., Bajorska, A., Peterson, D.R., Kunitz, S.J., Gross, D., Williams,T.F., & Mukamel, D.B. (2004). Social Support and Risk-Adjusted Mortality in a Frail Older Population. *Medical Care, 42(8),* 779-788.