

The Essential Role of the Rehabilitation Nurse in Facilitating Care Transitions

A White Paper by the Association of Rehabilitation Nurses

Executive Summary



Copyright © 2013 Association of Rehabilitation Nurses

All rights reserved. No part of this white paper may be used or reproduced in any manner whatsoever without written permission except for brief quotations embodied in critical articles and reviews. For information, write to the Association of Rehabilitation Nurses, 8735 W. Higgins Road, Suite 300, Chicago, IL. 60631

The current process of care transitions for individuals with disabling conditions is both ineffective and inefficient. There is a need for clinicians with the necessary knowledge and skills to advocate and facilitate transitions that result in the greatest value to the patients, their families, and the healthcare delivery system. A review of the literature reveals significant problems with transitions to post-acute care (PAC) settings. Care is fragmented, disorganized, and guided by factors unrelated to the quality of care or patient outcomes. Studies have demonstrated that the selection of a PAC setting for patients is influenced by multiple factors (Gage, 2009; Sandel et al., 2009).

Patients' clinically assessed needs often do not match the level of care determined by decision makers because optimal patient outcomes may not be the primary factor considered. Competing factors include proximity of providers, relationships between providers of care, payer source, and variation in the interpretations of regulations regarding PAC. Decision makers may include the patient, family members, discharge planners, physicians, insurance company representatives, social workers, and other healthcare providers.

Many times, these decision makers lack adequate information to make the best decision during care transition planning. Consequently, care transitions remain a confusing time for patients and their families and can result in both overuse and underuse of PAC services and suboptimal quality of care and clinical outcomes. Families involved in PAC transitions often feel overwhelmed and dissatisfied (Lutz, Young, Cox, Martz, & Creasy, 2011). PAC is a significant part of the overall care of many Medicare patients and up to 35% of Medicare patients are discharged each year to a PAC setting (Gage, 2009).

PAC is provided in various settings, including skilled nursing facilities, inpatient rehabilitation facilities, long-term acute care hospitals, outpatient centers, and in the home by

home healthcare agencies. PAC is provided by nurses in addition to a wide array of specialized clinicians such as physical therapists, occupational therapists, physicians, speech language pathologists, neuropsychologists, social workers, and discharge planners. Rehabilitation is a key component of the care provided in each of these settings. Approximately 30%–60% of the older patients develop new dependence in activities of daily living (ADL) during an acute care hospital stay, which can result in progressive disability after discharge (Huang, Chang, Liu, Lin, & Chen, 2013).

Determining the best setting for the patient to meet patient-centered goals requires a thorough understanding of rehabilitation services that will maximize the achievement of evidence-based quality outcomes. A framework to evaluate the appropriateness of the care setting choice for the patient should include an evaluation of appropriate patient-centered transition of care planning. Pilot studies have demonstrated that when a nurse with an understanding of care transitions is integrated into the process, unplanned 30-day hospital readmission rates decline and other quality outcomes are improved (Congressional Research Service [CRS], 2010).

The current case management model has failed to promote the consistent utilization of clinicians skilled in advocating on behalf of the best interests of patients and their families (American Nurses Association [ANA], 2012). The clinician involved in PAC transitions for people with chronic disease and disabling conditions must be client centered, goal oriented, and outcome based. These clinicians must understand the available levels of PAC, reimbursement, and roles of other professionals and how each role impacts long-term success in patient-centered goals. Rehabilitation nurses are defined by a unique skill set, which includes the knowledge and understanding of care management needed for populations with acute or chronic illnesses and

conditions that cause disability. They are experts at leading teams to focus on helping patients in these vulnerable populations recover as much function as possible or manage new disability (e.g., incontinence) through the formulation and implementation of patient- and family-centered interventions and evaluation of outcomes. Rehabilitation nurses possess a comprehensive understanding of the resources available at each level of PAC. It is this skill set and strong value for advocating for the provision of appropriate services based on the patient's and family's needs that makes them uniquely able to guide patients and families in successful PAC transitions. Furthermore, greater use of rehabilitation nurses in policy making, such as contributing toward more meaningful measures for accountability for vulnerable populations, would serve to balance cost efficiency and healthcare quality, while promoting reduction in care disparities.

Care coordination promotes greater quality, safety, and efficiency in care, resulting in improved healthcare outcomes, and is consistent with nursing's holistic, patient-centered framework of care (ANA, 2012). A nurse with rehabilitation nursing training, knowledge, and experience is the healthcare professional who is best able to coordinate, support, and facilitate the discharge transition process to promote quality outcomes and cost-effective care for individuals with disabling conditions. ARN recommends that nurses with this specialty training are utilized to facilitate care transitions for individuals with disabling conditions, to educate and inform families on options and services available, and be involved in national policy decisions to ensure cost-efficient care is being delivered without compromising the quality of patient care in the United States. PAC is changing and we lack research on many issues. Studies are needed to evaluate the impact of rehabilitation nurses on the healthcare delivery system, including transitional care. Additionally, the *Standards and Scope of Rehabilitation Practice* (2008) and

this white paper should be foundational documents for discharge planning education related to care transitions for individuals with disabling conditions.

ARN remains committed to promoting the health and welfare of clients with disabilities and ensuring that the patient receives the right care at the right time by the right providers. Appropriate care transitions promote the greatest value and the most effective and efficient care for clients with disabilities (Naylor, Aiken, Kurtzman, & Olds, 2010). It is integral that people involved with healthcare policy decision making, educators, payors, and other stakeholders in health care understand the value of the rehabilitation nurse's essential role in facilitating in care transitions.

Background

The Affordable Care Act (ACA) seeks to instill more quality into the U.S. healthcare system. Following the passage of the ACA in 2012, the U.S. Department of Health and Human Services submitted to Congress the National Quality Strategy (NQS) Report, which presents three aims for the healthcare system.

- Better care: Improve the overall quality of care by making health care more patient centered, reliable, accessible, and safe.
- Healthy people and communities: Improve the health of the U.S. population by supporting proven interventions to address behavioral, social, and environmental determinants of health in addition to delivering higher quality care.
- Affordable care: Reduce the cost of quality health care for individuals, families, employers, and government.

To help achieve these aims, the strategy also established six priorities to help focus efforts by public and private partners.

1. Make care safer by reducing harm caused in the delivery of care.
2. Ensure that each person and family is engaged as partners in their care.
3. Promote effective communication and coordination of care.
4. Promote the most effective prevention and treatment practices for the leading causes of mortality, starting with cardiovascular disease.
5. Work with communities to promote wide use of best practices to enable healthy living.
6. Make quality care more affordable for individuals, families, employers, and governments by developing and spreading new healthcare delivery models.

The NQS report embraces a focus on quality as measured by clinical and patient-reported outcomes. As part of patient-reported outcomes, the report recommends evaluation of care transitions and change in functional status (U.S. Department of Health and Human Services [HHS], 2012), which are integral to PAC. To ensure high-quality health care, it is necessary to focus on care coordination, including PAC transitions, to ensure the coordination of the patient's care as he or she moves from one site of care to another.

The importance of ensuring proper transitional care from a hospital to a PAC provider has increased in recent years as patients are spending less time as hospital inpatients. The average hospital length of stay (ALOS) for patients has steadily declined since 1983 with the advent of the inpatient prospective payment system (IPPS) and the diagnosis-related groups (DRG) system. The average inpatient rehabilitation facility (IRF) length of stay (LOS) of stroke patients nationwide decreased from 19.6 to 16.5 days between 2001 and 2008 (Granger, Markello, Graham, Deutsch, & Ottenbacher, 2009). According to the American Hospital Association (AHA) (2011) the ALOS from 1991 to 2011 declined from 7.2 days to 5.4 days, a decrease of 25%.

Although patients are spending less time as hospital inpatients, the use of PAC services has increased. The Centers for Medicare and Medicaid Services (CMS) contracted with RTI International to examine PAC costs and outcomes in 206 PAC settings from 2008 to 2010 (CMS, 2010). According to this study, up to 35% of Medicare patients are discharged from acute care to a PAC setting (Gage, 2009). Utilization patterns of the various PAC settings appear to be influenced by the payment system (Medicare Payment Advisory Commission [MedPac], 2013). The Institute of Medicine (IOM) Committee on Geographic Variation in Health Care Spending and Promotion of High-Value Care identified geographic variation in spending and utilization. This variation in spending across geographic areas is driven largely by variation in the utilization of PAC services. The committee also identified an inconsistent relationship between spending and quality of health care (Institute of Medicine [IOM], 2013).

This increased utilization of PAC settings has made care transitions a critical component of favorable patient-centered outcomes. Every year more than 10 million Medicare beneficiaries are admitted to a PAC setting (Grobowski, Huckfeldt, Sood, Escarce, & Newhouse, 2012). These beneficiaries are some of the frailest and most vulnerable individuals who are living longer in their disease trajectories. Medicare's spending on these populations, often dually eligible for both Medicare and Medicaid, has increased significantly in the past decade, more than doubling from \$26.6 billion in 2001 to \$58 billion in 2010 (MedPAC, 2011).

Unfortunately, poorly coordinated care transitions have also led to disparities in care based on geographical proximities to providers and other factors unrelated to evidenced-based practice (Sandel et al., 2009). This study of more than 11,000 patients who suffered a stroke found that these patients were more likely to go to a skilled nursing facility (SNF) if they were female and older. If the patients were Asian, black, from a higher socioeconomic class, or within

a close proximity to an IRF, they were more likely to receive post-acute care at an inpatient rehabilitation facility.

NQF recognizes readmission measures can serve as an indicator of whether care coordination has been optimized. According to the Medicare Payment Advisory Commission, unplanned readmissions to the hospital within 30 days of a patient's discharge cost the Medicare program approximately \$15 million annually. Included in the ACA is the calculation from hospital readmission rates from claims data. Hospitals with above-average readmissions rates face a financial penalty. Since the hospital readmissions reduction program began in fiscal year (FY) 2013, policymakers have considered expanding the readmissions reduction program to include other providers. For example, as part of the FY 2014 rehabilitation facility prospective payment system (PPS) final rule, CMS adopted an all-cause unplanned readmission measure for 30 days post discharge from inpatient rehabilitation facilities. CMS also finalized an all-cause unplanned readmission measure for 30 days post discharge for long-term acute care hospitals (LTCHs) in the IPPS and LTCH PPS final rule.

In March 2013, CMS released the *Guidance for Discharge Planning Conditions of Participation (CoP)* for hospitals. The report notes that unplanned hospital readmissions may result from a variety of factors, including poor care transitions to PAC. One attribute to readmission is the discharge from the hospital to an inappropriate setting or if the patient does not receive adequate information or resources to ensure a continued progression of services (Minott, 2008). According to the report, "system factors such as poorly coordinated care and incomplete communication and information exchanged between inpatient and community-based providers may also lead to unplanned readmissions" (CMS, 2013a, p. 6). Given this, CMS presented the revised CoP. This includes the requirement that hospitals evaluate "the likelihood

of a patient needing post-hospital services and the availability of services” and “the likelihood of a patient’s capacity for self-care or the possibility of the patient being cared for in the environment from which he or she entered the hospital” (CMS, 2013a, p. 11). The hospital is expected to be aware of the capabilities and limitations of post-acute facilities in order to avoid unplanned readmissions.

In addition, insurance company contracts, often following the precedent of CMS Fiscal Intermediaries (FI), create additional guidelines for approval of patients to various settings. These guidelines often are created to serve the interest of the insurance companies in the short term without addressing the long-term outcomes or total costs of care incurred by the family. For example, an insurance company may find that a lower level of care is less expensive under their coverage guidelines, but if the outcome leads to long-term care for the patient, this cost is often incurred by another payer source, usually the patient and family. The resulting consequence for the patient of not achieving the optimal functional goal and returning to a community setting is also not factored into the decision-making process.

Historically, very little guidance has been provided to key decision makers in choosing the PAC setting that delivers effective and efficient care and results in optimal patient outcomes. In determining where to discharge patients, a myriad of factors (e.g., availability of PAC services, geography, financial considerations) are considered. Nurses have a key role in guiding this decision making as described in the ANA white paper on *The Value of Nursing Care Coordination* (2012). Although CMS suggests that certain disciplines may perform transitional care management (TCM) services (CMS, 2013b), nurses with experience in the specialty practice of rehabilitation nursing, including nurse practitioners and advanced practice registered nurses,

possess the optimal skills to provide care coordination for patients requiring rehabilitation services due to injury or illness causing disability.

In addition to the most recent MedPAC report, Medicare paid for care in SNFs for 1.7 million beneficiaries. An estimated 3.4 million Medicare beneficiaries received home health care. IRFs treated 371,000 beneficiaries and 123,000 Medicare beneficiaries received care in LTCHs (MedPAC, 2013). However, usage patterns alone are insufficient to determine whether a patient is receiving care in the setting most appropriate for his or her needs.

Definition of Rehabilitation

Although PAC occurs in a variety of settings, rehabilitation services are often a significant part of the care provided. Rehabilitation is a philosophy of practice and an attitude toward caring for people with disabilities and chronic health problems (Larsen, 2011). The goal of rehabilitation is to restore mental and/or physical abilities lost to disease to function in a normal or near-normal way (National Cancer Institute, 2013). Rehabilitation is a philosophy of practice and an attitude toward caring for people with disabilities and chronic health problems (Larsen, 2011).

Underlying the concept of rehabilitation is the specialty of rehabilitation nursing. Rehabilitation nursing is defined as “the diagnosis and treatment of human responses of individuals and groups to actual or potential health problems related to altered functional ability and lifestyle” (ARN, 2008, p. 13). Various levels and settings for rehabilitation services are available, SNFs, IRFs, LTCHs, outpatient therapy (OP), or home health (HH). Rehabilitation in each of these settings seeks to maximize the function of the individual impacted by injury. Each of these sites of care will be further described in greater detail in regard to the amount and type of rehabilitation services offered in these settings and associated outcomes based on the

complexity of the patient and the appropriateness of services provided to meet the patient's needs.

Care Transitions

The concept of care transitions and the utilization of PAC services is complex. The determination of post-acute level of care is often driven by factors unrelated to producing the best possible outcome of care. As mentioned previously, the study by Sandel and colleagues (2009) demonstrated that discharge to PAC was correlated with gender, race, age, socioeconomic background, and geographical proximity to a PAC provider. In another study by Gage (2009), hospital relationship with a PAC provider had a higher correlation with discharge to a PAC setting. Gage found that if a hospital had a formal relationship with an IRF, SNF, or HH provider, patients were more likely to be discharged to one of those settings.

Throughout the decades following the advent of DRGs, acute care hospitals have implemented care coordination under the guidance of care management. Regrettably, the move to expand the use of care coordination under the purview of care management (CM) has resulted in limited improvement in the quality of patient care. Much of the early efforts of care management were focused on utilization management, which focuses more on resource utilization rather than care or transition management. The Agency for Healthcare Research and Quality (AHRQ) found when studying traditional models that "CM had limited impact on patient-centered outcomes, quality of care, and resource utilization among patients with chronic medical illness" (2013, p. vii).

Failure to determine the individual patient's appropriate site of care for PAC services has contributed to an unacceptable level of hospital readmissions. The Congressional Research Services (CRS) found that patients are readmitted to the acute care provider from the PAC

setting often because they either lack the ability to provide the appropriate level of care, or lack sufficient information (e.g., longitudinal patient-centered care plan such as NQF's *Critical Paths: Care Coordination Report*, 2010) to provide for the Medicare beneficiary's patient-centered needs (CRS, 2010). It is suggested that with improved care coordination, 30-day hospital readmissions would be reduced, with a subsequent reduction in costs and negative patient outcomes. In pilot studies conducted at an integrated healthcare network, coordinated care transitions resulted in significantly lower hospital readmission rates (CRS, 2010; Naylor et al., 2010). This illustrates the benefits of matching the patient's needs with the appropriate level of PAC and associated healthcare resources.

Rehabilitation Levels of Post-Acute Care

Rehabilitation is a process, practice, and philosophy, not a care setting. The determination of the right level of post-acute care for an individual must be based on the individual's biopsychosocial ecological assessment. There are many factors that must be considered, including systems factors, biological factors, social factors, financial resources, and environmental factors. Systems factors include the components of care and services, the intensity of services, and the structure and process of the program. Biological factors include an individual's medical needs, pre-injury or illness level of function, and tolerance of rehabilitation. Social factors include psychological and community supports, both formal and informal, in addition to patient and family engagement. Financial resources and stressors and the physical environment of the community living setting are also important considerations. The PAC setting must be matched to the patients' needs. The following table briefly describes various levels of PAC.

Table 1. Post-Acute Rehabilitation Levels of Care—Inpatient Care

	Long-Term Care Hospital (LTCH)	Inpatient Rehabilitation Facility (IRF)	Skilled Nursing Facility (SNF)	Long-Term/Custodial Care
Functional Status	<ul style="list-style-type: none"> ▪ Patient has medically complex needs that cannot be met at a lower level of care. ▪ Patient has complex wounds ▪ Patient has experienced failure of two or more major organ systems. ▪ Patient failed ventilator weaning after more than 3 weeks at a prior hospitalization. 	<ul style="list-style-type: none"> ▪ Patient has some degree of ADL and mobility impairment. ▪ Patient is cognitively able to participate in therapy. ▪ Significant practical functional improvement is expected. 	<ul style="list-style-type: none"> ▪ Patient has some degree of ADL and mobility impairment or other skilled need. ▪ Some functional improvement is expected. 	<ul style="list-style-type: none"> ▪ Patient has some degree of mobility or ADL impairment and cannot be managed at a lower level of care. ▪ Patient may or may not have cognitive deficits. ▪ Patient has not reached independent level to be managed at home setting. ▪ Patient is no longer making progress where they can benefit from skilled intervention.
Nursing & Medical Services Required	<ul style="list-style-type: none"> ▪ Requires ongoing acute medical management ▪ Requires 24 hour licensed nursing care 	<ul style="list-style-type: none"> ▪ Requires ongoing acute medical management ▪ Requires 24-hour rehabilitation nursing care ▪ Need for coordinated, interdisciplinary care 	<ul style="list-style-type: none"> ▪ Involvement of skilled nursing staff is required to meet individual's medical needs, promote recovery, and ensure medical safety. 	<ul style="list-style-type: none"> ▪ Involvement of nursing staff does not require daily skilled nursing observation or intervention, but staff ensure that the patient's medical safety needs are met.
Therapies Required	<ul style="list-style-type: none"> ▪ Therapy as an adjunct to medical treatment 	<ul style="list-style-type: none"> ▪ Requires two or more therapies, one of which must be PT or OT 	<ul style="list-style-type: none"> ▪ Requires one or more therapies OR ▪ Patient has daily skilled nursing need 	<ul style="list-style-type: none"> ▪ May require therapy, but the total must be less than 5 times per week ▪ May benefit from Part B therapy if skilled therapy intervention is required

	Long-Term Care Hospital (LTCH)	Inpatient Rehabilitation Facility (IRF)	Skilled Nursing Facility (SNF)	Long-Term/Custodial Care
Number of Therapy Hours Required and Tolerated	<ul style="list-style-type: none"> ▪ No minimum hours required. “Medically complex needs” is sufficient of admission. 	<ul style="list-style-type: none"> ▪ Tolerates at least 3 hours per day of therapy, 5 days per week 	<ul style="list-style-type: none"> ▪ There is no minimum number of tolerated hours required for SNF admission. Skilled need is sufficient 	N/A
Discharge Plan & Social Support		<ul style="list-style-type: none"> ▪ Probable discharge to community ▪ Adequate community support resources are available to meet needs based on functional prognosis. 	<ul style="list-style-type: none"> ▪ Completed psychosocial needs assessment ▪ Warm handoff completed between SNF and SNF coordinator or SNF MDs ▪ Possible discharge to community 	<ul style="list-style-type: none"> ▪ SNF transfer must include long-term plan of care. ▪ Completed psychosocial needs assessment and discussion with family regarding financial requirements ▪ Warm handoff completed between SNF and SNF coordinator or SNF MDs

Table 2. Post-Acute Rehabilitation Levels of Care—Home-Based Care

	Integrated Outpatient Therapy/Day Treatment	Home Health	Standard Outpatient Therapy
Functional Status	<ul style="list-style-type: none"> ▪ Patient is able to be cared for at home. ▪ Patient requires skilled multidisciplinary intervention with potential to make significant functional improvement in ADLs, mobility, or cognition/language. 	<ul style="list-style-type: none"> ▪ Patient is homebound due to some degree of ADL and mobility impairment. ▪ Patient completed cognitive evaluation. 	<ul style="list-style-type: none"> ▪ Patient has impairments and requires only supervision or minimal assistance with mobility or ADLs. ▪ Patient is cognitively able to participate in therapy.

	Integrated Outpatient Therapy/Day Treatment	Home Health	Standard Outpatient Therapy
	<ul style="list-style-type: none"> ▪ Patient is able to do a home exercise/activity program. 		
Nursing & Medical Services Required	<ul style="list-style-type: none"> ▪ Outpatient rehab RN, PM&R, case manager, and medical social worker are part of the multidisciplinary team as need 	<ul style="list-style-type: none"> ▪ May require home health nursing 	<ul style="list-style-type: none"> ▪ Referred to outpatient rehab RN, case manager, and medical social worker if needed
Therapies Required	<ul style="list-style-type: none"> ▪ Requires at least two therapies 	<ul style="list-style-type: none"> ▪ Requires one or more therapies with a nurse or social worker 	<ul style="list-style-type: none"> ▪ Requires one or more therapies
Number of Therapy Hours Required and Tolerated	<ul style="list-style-type: none"> ▪ Tolerates at least 1 hour per day <p style="text-align: center;">OR</p> <ul style="list-style-type: none"> ▪ Patient has a skilled need and a functional goal with good rehab prognosis. 	<ul style="list-style-type: none"> ▪ Tolerates at least 0.5 hour per day <p style="text-align: center;">OR</p> <ul style="list-style-type: none"> ▪ Patient has a skilled need and a functional goal with good rehab prognosis. 	<ul style="list-style-type: none"> ▪ Tolerates at least 0.5 hour per day either in the clinic or doing at-home exercises <p style="text-align: center;">OR</p> <ul style="list-style-type: none"> ▪ Patient has a skilled need and a functional goal with good rehab prognosis.
Discharge Plan & Social Support	<ul style="list-style-type: none"> ▪ Patient must have transportation to therapy location ▪ Has accessible environment at home and appropriate durable medical equipment to meet needs. ▪ Has support to continue exercise and activity program at home 	<ul style="list-style-type: none"> ▪ Patient must be able to get to/from therapy visits ▪ Has accessible environment at home and appropriate durable medical ▪ Has social support to continue exercise and activity program at home 	<ul style="list-style-type: none"> ▪ Confined to home ▪ Has accessible environment at home and appropriate durable medical

Studies on Post-Acute Settings and Outcomes

Each level of PAC serves as a valuable component of the care continuum. Unfortunately, external pressures from payers have led to selection of settings based on cost containment, without concern for maximizing outcomes. For example, Congress imposed upon IRFs a 75%

rule, which mandated that 75% of the patients treated at an IRF must have specified medical diagnoses for an IRF to maintain certification. In 2004, Congress lowered the threshold to 60% and also removed lower extremity joint replacement from the list of diagnoses. The result has been a decrease of joint replacement patients discharged to IRFs for PAC (MedPAC, 2012).

In another example, a study by Mallinson and colleagues (2011) demonstrated that joint replacement patients discharged from SNF settings had a lower ability to perform self-care tasks compared to post joint replacement patients discharged from an IRF setting. This same study showed that patients who were less dependent at admission were less dependent on discharge from home health services compared to IRF or SNF patients. The findings suggest that acuity of the patients and functional level are better determinants of successful outcomes than excluding one setting versus another (Mallinson et al., 2011). The appropriate level of care with the associated intensity of services and resources tailored to the individual's needs is achieved through effective care coordination during transitions.

Other studies have looked at the effectiveness of care in stroke patients in various settings. A study including over 58,000 patients compared clinical outcomes for stroke patients in both IRF and SNF settings. A comparison was made for stroke patients with minimal motor disabilities who received PAC in IRFs versus SNFs. For patients with minimal motor disabilities, there was no statistically significant difference in likelihood of discharge to a community setting whether they received their rehabilitation at an IRF or SNF. The likelihood of being discharged to a community setting was also not statistically different for patients who have suffered a stroke with significant cognitive disabilities. However, patients with mild cognitive disabilities and mild to significant motor disabilities had a greater likelihood of returning to a community setting if they received care in an IRF as opposed to in an SNF (Deutsch et al., 2006). The study clearly

demonstrates that motor and cognitive function should be used as determinants for PAC, rather than medical diagnosis alone.

The timing of care transitions is also critical. In a study of the effect of onset days on the functional outcomes of stroke patients receiving IRF treatment, Wang, Camicia, Terdiman, Hung, and Sandel (2011) illustrated that a shorter time from stroke onset to inpatient rehabilitation hospital (IRH) admission was significantly associated with greater functional gain of stroke patients during IRH stay. Patients with both moderate and severe functional impairments had a higher total FIM™ (functional independence measure) gain when admitted to IRH within 21 days of stroke. Earlier transition of patients post stroke to an IRH may lead to better functional improvement after stroke.

Functional outcomes are affected by PAC services. A study conducted on stroke patients between 2008 and 2010 compared the functional level of patients 6 months after they received PAC care in various settings. Patients who received PAC care at an IRF had significant functional improvement 6 months after a stroke versus patients who received PAC care at any of the other settings (e.g., SNF, OP, or HH) (Chan et al., 2013; Deutsch, 2013).

Looking at survival rates, a study was conducted that compared 60-day and 1-year survival rates for post stroke patients after discharge from various PAC settings. The results revealed that 1-year survival rates were better for patients who received care at an IRF versus patients who were treated initially by HH, but no difference was noted when IRF patients were compared with patients treated in OP. The authors of the study recognize that differences in survival may be attributed to PAC follow-up or referral patterns rather than the PAC settings themselves. More study on survival rates is recommended (Chan et al., 2013).

As previously noted, there are great variances in the amount of therapy a patient may receive in various settings. Patients may expect to receive as little as 1 hour per day, 3 days per week in outpatient or as much as 3 hours per day, 5 or more days per week in an IRF. The amount of care provided is dictated by financial constraints and rules that govern the requirements for licensure. To maintain licensure, an IRF must provide 3 hours per day of therapy 5 days per week (or 15 hours over 7 days) to each patient. This requirement brings up the question of whether or not the costs associated with providing this level of care are consistent with expected benefits. In a study involving 360 stroke patients, it was determined that patients who received 3 hours per day of therapy, 5 days per week had significant functional gain as opposed to patients who received less than 3 hours per day of therapy. No additional benefit was noted with greater than 3 hours per day of therapy (Wang et al., 2013).

Research has also been conducted to evaluate the outcomes of patients who are ventilator-dependent with the goal of weaning off the ventilator and returning the patient to a community setting or lower level of care served in LTCHs. The costs savings for transferring a patient to an LTCH was shown to be over \$20,000 per patient. Added to this is the fact that patients transferred to an LTCH had a longer mean survival time than patients who did not receive transitional care in an LTCH (Seneff, Wagner, Thompson, Honeycutt, & Silver, 2000).

Another factor related to post-acute transitions that may affect outcomes is the number of days it takes for a patient to begin care in a PAC setting. In a study looking at onset days (days to transfer), it was noted that patients who began rehabilitation at an IRF within 21 days had significantly better functional gains than patients whose PAC was delayed (Wang et al., 2011) even in the most severely impaired patients.

Rehabilitation Nursing

Utilization of appropriate resources is critical in the healthcare delivery system to improve quality of care (IOM, 2001). The Certified Registered Rehabilitation Nurse (CRRN) is a rehabilitation or restorative nurse who has demonstrated a combination of experience and knowledge in this specialty practice area. The value of the CRRN was illustrated in a multisite study by Nelson and colleagues (2007) that showed an inverse relationship between the number of CRRNs and LOS in inpatient rehabilitation facilities. Nelson's study showed a 6% decrease in LOS for a 1% increase in CRRNs.

Rehabilitation nurses work in a variety of roles across the continuum of health care. To assist patients in achieving optimal outcomes, rehabilitation nurses act as case managers and use their expertise in effective communication between patient and family as well as between rehabilitation team and patient, in addition to family education, to maximize the rehabilitation process and minimize disability. They support the optimum utilization of therapies and community resources. In a case manager role, the rehabilitation nurse integrates psychosocial factors using disease management concepts. They maintain perspective of the trajectory of illness and recovery for complex medical issues and the care continuum over the life span and associated healthcare resources. The rehabilitation nurse assists clients in adapting to an altered lifestyle while providing a therapeutic environment for clients and their families. The rehabilitation nurse designs and implements treatment strategies that are based on scientific nursing theory related to self-care and promote physical, psychosocial, and spiritual health. The nurse is a teacher, caregiver, collaborator, and advocate (ARN, 2006).

The rehabilitation staff nurse provides direct care and education and training on self-care including safe medication administration; sleep; nutrition; safety; and skin, bowel, and bladder

care. The rehabilitation nurse performs activities that maintain and restore function and prevent complications. They direct carryover of skills taught and practiced during therapy. The nurse acts as a patient and family advocate.

Members of the Rehabilitation Team

Rehabilitation nurses are key contributors to the care of individuals with chronic conditions and disability, and they are uniquely prepared to lead team-based care coordination, including transitional care. Rehabilitation is provided by additional professionals who collaborate with each other and the patient and family to develop patient-centered goals and objectives. This team approach values all members of the team, with the patient and family in the center of the team. The roles and responsibilities of team members are further defined.

Patient

- Communicate with other members of the team.
- Learn about his or her illness or injury.
- Participate in therapies.
- Participate in decisions and preparations for next level of care.

Patient Family/Caregiver/Significant Other

- Learn about the patient's injury or illness.
- Investigate community resources.
- Discuss concerns with team members as needed.
- Provide information about the home environment.

Physician

- Establish a medical diagnosis.
- Guide the rehabilitation program.

- Update the patient and family members on goals and prognosis.
- Order tests, DME, and post discharge care.
- Determine physical restrictions and impairment ratings.

Rehabilitation Nurse

- Assist the client with adapting to an altered lifestyle.
- Design and implement treatment strategies to promote overall health.
- Provide a therapeutic environment.

Advanced Practice Nurse

- Conduct a comprehensive assessment.
- Synthesize data to formulate decisions and plans that optimize health.
- Collaborate with nursing peers and interdisciplinary team.

Physical Therapist

- Promote mobility and function.
- Diagnose and treat conditions that limit the body's ability to move.
- Carry out a treatment plan to improve and restore strength, flexibility, endurance, balance, and coordination.
- Teach the patient and family compensatory strategies.
- Assist with the acquisition of assistive mobility devices.

Occupational Therapist

- Utilize treatment modalities to restore ability to perform activities of daily living.
- Educate the patient and family on adapting the environment, modifying tasks, or utilizing equipment to perform activities of daily living.
- Develop exercise programs to improve upper extremity function.

Speech-Language Pathologist

- Provide information regarding communication problems
- Evaluate and treating cognitive problems
- Assess for the possible use of augmentative communication devices
- Evaluate and treating swallow disorders

Neuropsychologist

- Assess cognitive, behavioral, and emotional aspects of the client.
- Assist the team in understanding and intervening in behavioral issues.
- Educate the patient and family on neurological conditions.
- Provide the family with coping strategies for challenging behaviors.

Social Worker

- Support the patient and caregiver throughout the process.
- Assess the patient's social situation and its impact on recovery.
- Facilitate communication between the family and rehabilitation team.
- Assess and acquire recommended resources.

Care Coordinator

- Assist the patient with transitions between healthcare settings.
- Ensure communication between the patient/family and the healthcare team.
- Help the patient and his or her family understand healthcare benefits.
- Identify skills and expectations of patients and families in regard to the rehabilitation process.

Recreational Therapist/Activity Therapist

- Promote social skills and constructive use of leisure time.

- Develop educational leisure programs.
- Provide information on community resources to assist with community reentry.

The composition of the rehabilitation team depends on the needs of the individual and the treatment setting. It is critical that individuals with chronic and disabling conditions are served in the PAC setting that includes the provision of services to optimize health outcomes and quality of life. Not every rehabilitation team will consist of representatives from each of these professions.

The Role of the Patient and Family: PAC Transitions

Transitions across care settings represent a time of “heightened vulnerability” (Chugh, Williams, Grigsby, & Coleman 2009, p. 11) for patients and confusion and uncertainty for family members. The key points of transition are between acute care and post-acute levels of care and the transition to home. Transitions home can be particularly overwhelming and have been defined as a time of crisis for family caregivers, especially those who are new to the caregiver role (Lutz, Young, Cox, Martz, & Creasy, 2011). Transitioning patients who qualify for rehabilitation services to the appropriate setting throughout the continuum of care is important for achieving the best possible patient outcomes (Chan et al., 2013; American Academy of Nursing [AAN], 2012; ANA, 2012).

Acute care hospitalizations are often a time of crisis for patients and their families, making cognitive decision making difficult. The ALOS is often short (e.g., 5 days), requiring quick decisions about the next level of care. Families often believe the patients’ healthcare providers are the most appropriate people to make the decision about the next level of care. This is heightened if the family is overwhelmed or in crisis or lacks the knowledge to make such

decisions. If the patient or family places a high value on the expertise of healthcare providers' knowledge about appropriate levels of care, they will rely heavily on that expertise. In many cases, when given a choice they will defer to the healthcare provider to make a recommendation for an appropriate level of care. However, many healthcare providers do not have the necessary information to make decisions about the PAC. Furthermore, in many instances, families are often not included—or not included timely—in the decision making process.

Engagement of the patient and family in this decision making is essential, though the degree to which patients and families are involved is variable. Health literacy and culture are important considerations that are often overlooked (AHRQ, 2004). According to Dossa (2012), discharge information needs to be legible and in large type and provide accurate information to patients regarding contact information for questions. Discharge education and instructions need to be thoroughly reviewed by both patients and their caregivers.

Patient and family engagement in decisions regarding care has been defined as “essential to improving quality” (Nursing Alliance for Quality of Care [NAQC], 2013, p. 2) of care and is key to providing patient-centered care (NAQC, 2013). Rehabilitation professionals have identified the importance of including the patient and his or her family members in the decision making process regarding the most appropriate location for PAC. Patients and family members are often overwhelmed because of the illness and defer to healthcare providers, friends, or other support mechanisms to assist them in making the PAC transition decision.

Often the healthcare provider (physician, nurse, social worker, or case manager) makes the decision about the next level of care and the facility to which the patient transitions. This may depend on which facilities have space available or on the healthcare provider's opinion on the appropriate level of care. Families and patients often indicate that they were not informed about

their options or were not included in the decision-making process. Sometimes when choices are provided they are not explained in sufficient detail for families and patients to make an informed choice (Lutz, Young, Cox, Martz, & Creasy, 2011).

Discussion

The current process of care transitions for individuals with disabling conditions is both ineffective and inefficient. The patient and family are unable to process information and often are not provided with necessary information and support to participate in decisions regarding care transitions. Furthermore, clinicians involved in PAC decisions are guided more by geographic proximity or relationship to their own setting than by achieving optimal, cost-effective outcomes for the patient and families involved.

The current care management model has failed to promote the utilization of clinicians skilled in advocating on behalf of the best interests of patients and their families. The clinician involved in PAC transitions for people with chronic disease and disabling conditions must be client centered, goal oriented, and outcome based. He or she must understand the available levels of PAC and roles of other professionals and how each role impacts the long-term success in the patient's care. The nurse, who either through specialty certification (CRRN) or experience in rehabilitation nursing, also possesses this knowledge and skill. It is the role of the nurse to advocate on behalf of the patient, understand the scientific basis for healthcare decisions, and balance the various ethical needs of the patient. Rehabilitation nursing provides the foundation needed to practice the art and science of case management for patients with complex medical and psychosocial conditions that results in disability. The nurse-patient relationship is unique within the healthcare environment and, because nurses are central to the healing process, their role on the rehabilitation team is vital. Rehabilitation nurses use assessment skills in a holistic manner

that includes physical, behavioral, spiritual, and cultural literacy and psychosocial factors (ARN, 2006).

Conclusion

A nurse with rehabilitation nursing training, knowledge, and experience is the healthcare professional who is best able to coordinate, support, and oversee the discharge transition process to promote quality outcomes and cost-effective care for individuals with disabling conditions. To this end, ARN makes the following recommendations.

PRACTICE

- Care transitions for individuals with disabling conditions must be facilitated by nurses with rehabilitation nursing training, knowledge, and experience. It must be the role of the rehabilitation nurse to educate and inform families on options and services available, taking scientific evidence and summarizing it in meaningful ways so families can make informed decisions about care transitions.

POLICY

- Nurses with training, knowledge, and experience in rehabilitation nursing must be involved in national policy decisions to ensure cost-efficient care is being delivered without compromising the quality of patient care in the United States.
- Rehabilitation nurses should be included on technical expert panels assessing concepts for future care coordination measure development, including transitional care, as a tool to evaluate the quality of care coordination for individuals with disabilities.

RESEARCH

- Studies are needed to evaluate the impact of rehabilitation nurses on the healthcare delivery system.

- Federal agencies should fund research that supports comparisons of payments and quality models and evaluation of value-based payment models.

EDUCATION

- ARN's *Standards and Scope of Rehabilitation Practice* and this white paper should be foundational documents for discharge planning education related to care transitions for individuals with disabling conditions.

References

Agency for Healthcare Research and Quality (AHRQ). (2004). *Setting the agenda for research on cultural competence in health care*. Retrieved from

<http://www.ahrq.gov/research/findings/factsheets/literacy/cultural/cultural.pdf>.

Agency for Healthcare Research and Quality (AHRQ). (2013). *Outpatient case management for adults with medical illness and complex care needs*. Retrieved from

http://effectivehealthcare.ahrq.gov/ehc/products/498/1378/FRN30_OutpatientCaseManagement_FinalReport_20130109.pdf.

American Academy of Nursing (AAN). (2012). *Raise the voice: Transforming America's health care system through nursing solutions*. Retrieved from

<http://www.aannet.org/raisethevoice>.

American Hospital Association (AHA). (2011). *AHA hospital statistics 2012 edition*. Chicago, IL.: AHA.

American Nurses Association (ANA). (2012). *The value of nursing care coordination*. Silver Spring, MD: Author.

- Association of Rehabilitation Nurses (ARN). (2006). *The Rehabilitation Staff Nurse Role Description*. Retrieved from <http://www.rehabnurse.org/uploads/files/uploads/File/rdstaffnurse11.pdf>
- Association of Rehabilitation Nurses (ARN). (2008). *Standards and scope of rehabilitation nursing practice*. Glenview, IL: Author.
- Centers for Medicare and Medicaid Services (CMS). (2010). *Medicare benefit policy manual*. Retrieved from <http://www.cms.gov/Regulations-and-Guidance/Guidance/Manuals/downloads/bp102c01.pdf>
- Centers for Medicare and Medicaid Services (CMS). (2013a). *Revisions to state operations manual (SOM), hospital appendix A - interpretive guidelines for 42 CFR 482.43, discharge planning*. Retrieved from <http://www.cms.gov/Medicare/Provider-Enrollment-and-Certification/SurveyCertificationGenInfo/Downloads/Survey-and-Cert-Letter-13-32.pdf>
- Centers for Medicare and Medicaid Services (CMS). (2013b). *Transitional care management services fact sheet*. Retrieved from <http://www.cms.gov/Outreach-and-Education/Medicare-Learning-Network-MLN/MLNProducts/Downloads/Transitional-Care-Management-Services-Fact-Sheet-ICN908628.pdf>
- Chan, L., Sandel, M. E., Jette, A. M., Appelman, J., Brandt, D. E., Cheng, P., Rasch, E. K. (2013). Does postacute care site matter? A longitudinal study assessing functional recovery after a stroke. *Physical Medicine and Rehabilitation*, 94(4), 622–629.
- Chugh, A., Williams, M. V., Grigsby, J., & Coleman, E. A. (2009). Better transitions: Improving comprehension of discharge instructions. *Frontiers of Health Services Management*, 25(3), 11–32.
- Congressional Research Service (CRS). (2010). *Medicare hospital readmissions: Issues, policy*

- options and PPACA*. Retrieved from
http://www.hospitalmedicine.org/am/pdf/advocacy/crs_readmissions_report.pdf.
- Deutsch, A. (2013). Does postacute care site matter? A longitudinal study assessing functional recovery after a stroke. *Archives of Physical Medicine and Rehabilitation*, *94*(4), 630–632.
- Deutsch, A., Granger, C.V., Heinemann, A.W., Fiedler, R.C., DeJong, G., Kane, R.L., Trevisan, M. (2006). Poststroke rehabilitation: Outcomes and reimbursement of inpatient rehabilitation facilities and subacute rehabilitation programs. *Stroke*, *37*(6), 1477–1482. doi: 10.1161/01.STR.0000221172.99375.5a.
- Dossa, A., Bokhour, B., & Hoenig, H. (2012). Care transitions from the hospital to home for patients with mobility impairments: Patient and family caregiver experiences. *Rehabilitation Nursing*, *37*(6), 277–285. doi: 10.1002/rnj.047.
- Gage, B. (2009). *Post acute care: Moving beyond the silos*. Retrieved November from
http://www.rti.org/files/fellowseminar/fellowseminar_longtermcare_gage.pdf.
- Granger, C. V., Markello, S. J., Graham, J. E., Deutsch, A., & Ottenbacher, K. J. (2009). The Uniform data system for medical rehabilitation: Report of patients with stroke discharged from comprehensive medical programs in 2000-2007. *American Journal of Physical Medicine & Rehabilitation*, *88*(12), 961–972. doi: 10.1097/PHM.0b013e3181c1ec38.
- Grobowski, D. C., Huckfeldt, P. J., Sood, N., Escarce, J. J., & Newhouse, J. P. (2012). Medicare postacute care payment reforms have potential to improve efficiency of care, but may need changes to cut costs. *Health Affairs*, *31*(9), 1941–1950. doi: 10.1377/hlthaff.2012.0351.

- Huang, H. T., Chang, C. M., Liu, L. F., Lin, H. S., & Chen, C. H. (2013). Trajectories and predictors of functional decline of hospitalized older patients. *Journal of Clinical Nursing*, 22(9-10), 1322–1331. doi: 10.1111/jocn.12055.
- Institute of Medicine (IOM). (2001). *Crossing the quality chasm: A new health system for the 21st Century*. Retrieved from <http://www.iom.edu/Reports/2001/Crossing-the-Quality-Chasm-A-New-Health-System-for-the-21st-Century.aspx>.
- Institute of Medicine (IOM). (2013). *Variation in health care spending: Target decision making not geography*. Retrieved from <http://www.iom.edu/Reports/2013/Variation-in-Health-Care-Spending-Target-Decision-Making-Not-Geography.aspx>.
- Larsen, P. (2011). The environment for rehabilitation nursing. In C. Jacelon (Ed.), *The Specialty Practice of Rehabilitation Nursing: A Core Curriculum* (6th ed., pp. 507–511). Glenview, IL: Association of Rehabilitation Nurses.
- Lutz, B. J., Young, M. E., Cox, K. J., Martz, C., & Creasy, K. R. (2011). The crisis of stroke: Experiences of patients and their family caregivers. *Topics in Stroke Rehabilitation*, 18(6), 786–797. doi: 10.1310/tsr1806-786.
- Mallinson, T. R., Bateman, J., Tseng, H. Y., Manheim, L., Almagor, O., Deustch, A., & Heinemann, A. W. (2011). A comparison of discharge functional status after rehabilitation in skilled nursing, home health, and medical rehabilitation settings for patients after lower-extremity joint replacement surgery. *Physical Medicine and Rehabilitation*, 92(5), 712–720. doi: 10.1016/j.apmr.2010.12.007.
- Medicare Payment Advisory Commission (MedPAC). (2011). *Report to the Congress: Medicare payment policy*. Retrieved from <http://medpac.gov>.
- Medicare Payment Advisory Commission (MedPAC). (2012). *Report to the Congress:*

- Medicare payment policy*. Retrieved from <http://medpac.gov>.
- Medicare Payment Advisory Commission (MedPAC). (2013). *Report to the Congress: Medicare and the health care delivery system*. Retrieved from <http://medpac.gov>.
- Minott, J. (2008). Reducing hospital readmissions. Retrieved from <http://www.academyhealth.org/files/publications/ReducingHospitalReadmissions.pdf>.
- National Cancer Institute (NCI). (2013). *NCI dictionary of cancer terms*. Retrieved from <http://www.cancer.gov/dictionary>.
- Naylor, M., Aiken, L., Kurtzman, E., & Olds, D. (2010). *Nursing's contributions to care coordination and transitional care: State of the science*. Retrieved from www.thefutureofnursing.org/resource/detail/nursing's-contributions-care-coordination-and-transitional-care-state-science.
- Nelson, A., Powell-Cope, G., Palacios, P., Luther, S. L., Black, T., Hillman, T., Gross, J. C. (2007). Nurse staffing and patient outcomes in inpatient rehabilitative settings. *Rehabilitation Nursing, 32*(5), 179–202.
- Nursing Alliance for Quality of Care (NAQC). (2013). *Fostering successful patient and family engagement*. Retrieved from <http://www.naqc.org/Main/Resources/Publications/March2013-FosteringSuccessfulPatientFamilyEngagement.pdf>.
- Sandel, M. E., Wang, H., Terdiman, J., Hoffman, J. M., Ciol, M. A., Sidney, S., Chan, L. (2009). Disparities in stroke rehabilitation: Results of a study in an integrated health system in northern California. *Physical Medicine and Rehabilitation, 1*(1), 29–40. doi: 10.1016/j.pmrj.2008.10.012.
- Seneff, M. G., Wagner, D., Thompson, D., Honeycutt, C., & Silver, M. R. (2000). The impact of

long-term-acute-care facilities on the outcome and cost of care for patients undergoing prolonged mechanical ventilation. *Critical Care Medicine*, 28(2), 342–350.

U.S. Department of Health and Human Services (HHS). (2012). *2012 Annual Progress Report to Congress National strategy for quality improvement in health care*. Retrieved from <http://www.ahrq.gov/workingforquality/nqs/nqs2012annlrpt.htm>.

Wang, H., Camicia, M., Terdiman, J., Hung, Y. Y., & Sandel, M. E. (2011). Time to inpatient rehabilitation hospital admission and functional outcomes of stroke patients. *Journal of Physical Medicine and Rehabilitation*, 3(4), 296–304.

Wang, H., Camicia, M., Terdiman, J., Mannava, M. K., Sidney, S., & Sandel, M. E. (2013). Daily treatment time and functional gains of stroke patients during inpatient rehabilitation. *Physical Medicine & Rehabilitation*, 5(2), 122–128.