Published in final edited form as:
Medsurg Nurs. 2006 February ; 15(1): 8–13.

‘My Mother’s Leaving Today?’: A Pilot Study on Awareness of Discharge Date in the Chronically Critically Ill

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Abstract

Chronically critically ill patients are a growing population. A pilot study determined nurses’ and family caregivers’ prior knowledge of the date of discharge for these patients. Despite complex needs, nurses and family caregivers were not aware of discharge until close to the target date.

Ms. M. is a 77-year-old female who came to the emergency department from home with complaints of increasing chest pain with activity over the past 2 weeks. She was diagnosed with an acute MI, and a cardiac catheterization revealed 90% blockages of six main coronary arteries. She underwent successful coronary artery bypass surgery but her postoperative course was complicated by hypotension, renal insufficiency, and volume overload. When Ms. M. remained on mechanical ventilation for 11 days, she joined one of the fastest growing subsets of patients — the chronically critically ill. On the 26th day of her admission, she was discharged from the acute care hospital to a rehabilitation center. Despite this protracted hospitalization and complicated course, the family caregivers and staff nurses were not aware of her impending discharge until the date of discharge. After only 7 days, the patient was readmitted to the acute care hospital for respiratory distress due to volume overload, pulmonary edema, and impending renal failure.

Background

Unfortunately, the scenario described is common among the chronically critically ill patient population. The chronically critically ill (CCI) are a recently recognized and growing population of patients who have endured prolonged periods of mechanical ventilation and subsequent lengthy hospitalizations while recovering from a variety of critical illnesses (Douglas et al., 1997; Nasraway, Button, Rand, Hudson-Jinks, & Gustafson, 2000). They typically require long stays in acute care and their hospital mortality rates average 35%–50% (Douglas & Daly, 2003; Kleinpell & Ferrans, 1998; Rudy et al., 1995; Votto, Brancifort, Scalise, Wollschlager, & ZuWallack, 1998). Their overall 1-year mortality rate has been reported as high as 55%–65% (Douglas, Daly, Gordon, & Brennan, 2002; Douglas et al.,

1997; Heyland, Konopad, Noseworthy, Johnston, & Gafni, 1998; Scheinhorn, Chao, Stearn-Hassenpflug, LaBree, & Heltsley, 1997).

The American Association of Critical Care Nurses' (AACN) *Standards of Care for Acute and Critical Care Nursing* include providing continuity of care for patients as one of the roles in nursing (AACN, 2000). On average, 74% of the CCI are transferred from the intensive care unit to a medical/surgical nursing unit prior to discharge (Higgins, 2001–2006).

For the CCI, extensive preparation is necessary prior to hospital discharge (Carasa & Nespoli, 2002). Historically, nurses have played a crucial role in the discharge of all patients from acute care institutions. Frequently, however, limited time and resources do not allow nurses the opportunity to complete these preparations. Although little data currently exist to substantiate this point, potentially negative consequences can result from abbreviated discharge planning. In fact, 38% of CCI patients will be readmitted within 6 months of their acute care discharge (Douglas, Daly, Brennan, Gordon, & Uthis, 2001).

Decreases in length of hospital stay are driven by both insurance/cost-management (Medical College of Wisconsin, 2003) and medical technology (Pearson, Proctor, Wilcockson, & Allgar, 2004) and they can contribute to initiation of discharge planning at short notice. Nurses must use every opportunity to prepare patients and families for discharge (London, 2004). For patients who are discharged home, staff nurses often work with an interdisciplinary team (Carasa & Nespoli, 2002) to arrange home care and necessary equipment; they also may make follow-up appointments and ensure prescriptions are written. When staff nurses are not aware of the discharge date, patients may leave the hospital without needed preparation, adequate follow-up plans, or the opportunity to ask pertinent questions. The CCI have complicated care needs at the time of discharge that warrant careful planning. Hence, it is important for nurses and family members/caregivers to be notified and prepared for discharge well in advance of the discharge date. However, nursing data have failed to address how well patients and family members believe they have been prepared for discharge (Leske & Pelczynski, 1999; Scherbring, 2002; Victor & Vetter, 1988). After extensive review of the literature (CINAHL 1982-present, Medline 1966-present, Proquest Nursing Journals 1985-present), authors were unable to locate any studies that provide data on "awareness of discharge date."

Sample/Methods

The purpose of this pilot study of a small convenience sample (n=16) of chronically critically ill patients was to determine nurses' and family caregivers' prior knowledge of the date of discharge from an acute care hospital. This study was conducted as part of two larger NIH grants (NINR-05005 and NINR-05207) investigating weaning and post-discharge outcomes, respectively, of the CCI. Enrollment criteria included more than 3 days on mechanical ventilation, 18 years of age or older, and no prior chronic home ventilation. Approval for both the parent studies and pilot study were received from the hospital's institutional review board.

Within 48 hours of the discharge, investigators contacted the primary family caregivers (family member or friend) and staff nurse assigned to the patient on the day of discharge to ask, "When were you first notified of the discharge date for your family member/friend/patient?" In addition, continuity of care was assessed with a single question asked of the nurses, "Is the discharge date the first day you cared for the patient?" Responses were coded 0 if family caregiver and nurses responded that they were notified of discharge on the date

of discharge, 1 if they knew about the discharge 1 day prior to date of discharge, 2 if they knew about the discharge 2 days prior to date of discharge, and so forth.

Results

Caregiver data were available for 12 of 16 subjects. The mean age (SD) of the family caregivers was 57.9 (16.1). Seventy-five percent (n=9) of the family caregivers were women. The primary relationship of the family caregivers to patients was as follows: 42% (n=5) were non-relatives, 33% (n=4) children, 17% (n=2) spouses, and 6% (n=1) the sibling.

Table 1 lists the descriptive characteristics of the patient sample (n=16). These data provide some indication of severity and complexity of the patients' illness episodes. The mean length of stay for the subjects was 26.3 days (range=11–52). Half of the sample (n=8) were discharged from the ICU and the other half from the medical/surgical nursing division. At discharge, 31% (n=5) of the sample were on partial or full mechanical ventilation. Sixty percent (n=9) of the patients required tracheostomy care and 75% (n=12) required oxygen. Five patients (36%) were readmitted to the acute care hospital within 2 months of discharge. Of those, two had multiple re-admissions within this period.

Figure 1 summarizes data regarding knowledge of discharge date for both the family caregivers and staff nurses. On average, family caregivers knew of the discharge date 1.4days (range=0–7) and the nurses 0.6 days (range=0–4) prior to discharge. For eight (50%) of the nurses, the patient's discharge day was the first time they cared for the patient. The nurses were then divided into two groups based on whether they provided care only on date of discharge or cared for the patient more than 1 day. A t-test indicated no statistically significant differences between these two groups related to timing of the nurse's (p=0.18) or family caregiver's notification of discharge (p=0.07). No statistically significant correlations existed between length of mechanical ventilation (r=0.17; p=0.53) or length of stay (r=0.16; p=0.59) and the number of days the staff nurses were aware of the discharge date prior to discharge. The data reflect the minimal notice of discharge date by both the family caregivers and the nurses. Because 50% of the nurses had not cared for the patient prior to the discharge date, the 0.6 days' notice may stem from lack of communication among staff members or actual last-minute discharge planning.

Could Ms. M.'s readmission to the acute care hospital have been avoided if the staff nurse and family caregivers had been aware of the discharge prior to the actual discharge date? A hurried or unplanned discharge can lead to mistakes, which may result in serious consequences, including readmission. In this case, one of the reasons for Ms. M.'s readmission was volume overload resulting in pulmonary edema. A rushed discharge also may result in miscommunication of essential patient data. For example, cognitive deficits, advance directives, identification of supportive family caregivers, and functional ability can make a difference in the discharge process.

The nurse's role in patient discharge as well as a sample modeling dialogue are presented in Figure 2.

Conclusion

Increasing numbers of CCI individuals spend time in medical-surgical units prior to acute care discharge, and they can present special challenges to discharge planning. Through this pilot study, authors learned several things. First, the study confirmed that, in the fast-paced environment of the acute care hospital, discharge planning may often be overlooked or not well communicated. Second, given the complexity of the care needs of the CCI and the high risk of readmission, discharge planning is an important target for quality improvement in

nursing care. Third, having established the feasibility of this method of data collection, authors are better prepared to conduct a larger, more formal study, A larger sample is needed to test hypotheses statistically and to test the necessary interventions to prepare staff nurses, family caregivers, and patients for a better discharge.

Acknowledgments

Funding Sources: NINR-05005, NINR-05207

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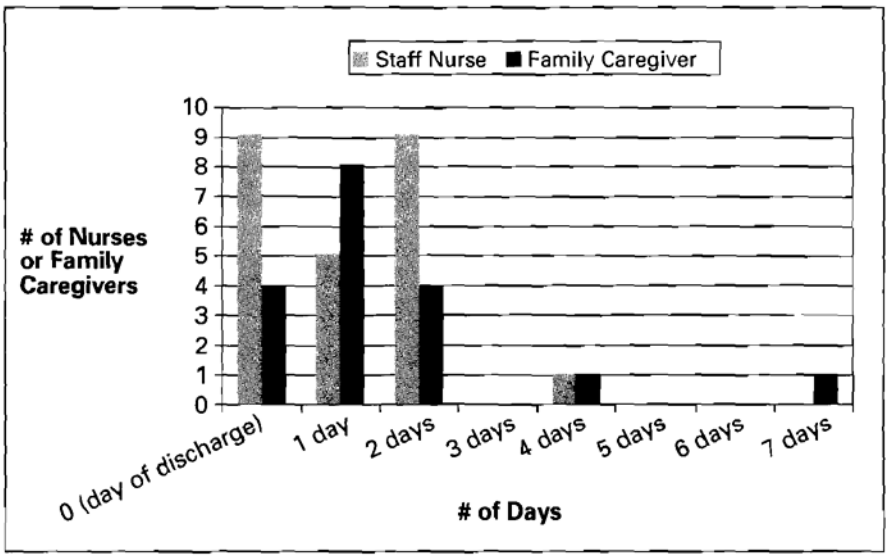

Figure 1.
Number of Days Prior to Discharge that Staff Nurse and Family Caregiver Were Aware of Discharge Date

How can a nurse help facilitate the discharge process? Given the rapid pace in most acute care hospitals, asking about discharge plans should be a regular part of gathering data on assigned patients at the start of each shift. Even patients who are still quite ill may be discharged to long-term acute care hospitals at short notice. If the discharge plan is not evident, the nurse should contact the physician (or the medical team in charge of the patient) and the social worker/case manager regarding expectations for potential discharge. Once the nurse is aware of the discharge, he or she can approach the patient and family caregiver to begin their preparation.

Sample Modeling Dialogue

RN: I have been told that you will probably be discharged in 2 days to a rehabilitation facility. The social worker has informed me that you will be transferred by ambulance and the ride will take about 20 minutes. Because the medications may change between now and the day you are discharged, your nurse will review the final medication regimen just prior to discharge.

Patient/Family Caregiver: Do we have to get the prescriptions filled at a local pharmacy and bring them to the rehabilitation facility?

RN: No, your prescriptions will be filled at the rehabilitation facility, just as they have been here in the hospital.

Patient/Family Caregiver: What about these big dressing changes for the wound? Will the staff there know what to use and how to do these?

RN: We have written down information about how the dressing should be changed, including what supplies to use and how often it should be done. We will send this with the patient to the rehabilitation facility.

Patient/Family Caregiver: What happens if we're not ready to go home once the rehabilitation days are completed?

RN: There will be a social worker at the rehabilitation facility who will address future care needs, including home care referrals.

Patient/Family Caregiver: When should we see the surgeon again?

RN: We will make the appointment before you leave the hospital and the rehabilitation facility will arrange transportation to the appointment. Please *let me know if you have any other questions. I will keep you updated as I* learn new information about the discharge.

Figure 2.
Nurse's Role in Patient Discharge

Table 1

Characteristics of Patient Sample (N=16)

Variables	Mean (SD)	Median	Range
Age	62.3 (17.7)	64.0	24–83
APACHE III (Admission)	61.7 (28.9)	48.5	29–125
LOMV *	15.7(11.7)	11.0	4–42
LOS *	26.3(12.7)	23.0	11–52
# of Pre-Existing Conditions	5.1 (2.9)	5.5	1–12
Variables	**n**	**%**	
Gender			
Female	9	56	
Male	7	44	
Race			
Caucasian	12	75	
Minority	4	25	
Living at Home Prior to Hospital Admission			
Yes	15	94	
No	1	6	
Type of Admission			
Planned	2	13	
Unplanned	14	88	
Primary Diagnostic Classification			
Cardiologic	5	31	
Respiratory	5	31	
Neurologic	6	38	
Disposition			
Long-term care	14	88	
Home with home care	2	13	
On Mechanical Ventilation at Discharge			
Yes	5	31	
No	11	69	
Readmission Within 2 Months of Hospital Discharge (n=T4)			
Yes	5	36	
No	9	64	

* = days

LOMV = Length of Mechanical Ventilation

LOS = Length of Stay