Review Article

Heart Failure and Skilled Nursing Facilities: Review of the Literature

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ABSTRACT

Background: Almost one-fourth of older adults hospitalized with heart failure (HF) are discharged to skilled nursing facilities (SNFs). The purpose of this review was to evaluate knowledge about HF patients discharged to SNFs to provide a foundation for future studies.

Methods and Results: A search was conducted of Medline, CINAHL, PubMed, and Google Scholar. Key words were heart failure, congestive heart failure, skilled care, skilled nursing care, skilled nursing facilities, nursing home, postacute care, postacute services, and subacute care. Publications (n = 37) were reviewed and categorized into case studies, editorials, clinical care, evaluation projects, and data-based publications. Of 29 data-based publications, 6 were focused on factors associated with hospital readmission from postacute settings, 3 on trends in hospitalizations, 12 on hospital discharge to postacute services, 5 on rehabilitation services in postacute settings, 1 on cost, and 2 on interventions. Patients discharged to SNFs were at high risk for mortality and multiple hospitalizations. No HF-specific care or guidelines were found at SNFs. Only 1 study evaluated quality of life at SNFs.

Conclusions: Prospective studies are needed to evaluate the clinical condition of HF patients discharged to SNFs and the interventions they receive. (*J Cardiac Fail 2012;18:854–871*)

Key Words: Hospital discharge, skilled nursing care, skilled care, postacute care.

Many studies have focused on improving care of heart failure (HF) patients after hospitalization by facilitating the transition from hospital to home and assisting patients and family members to perform self-care.[1–6] Results of these studies have been positive overall, with patients experiencing reduced rates of hospitalization and improved quality of life.[1–6] However, not all patients who are hospitalized are discharged directly to home. In fact, almost one-fourth of older HF patients are discharged from the hospital to skilled nursing facilities (SNFs).[7,8] In an observational study that linked patient data from the American Heart Association (AHA) Get With The Guidelines registry with claims data from the Centers for Medicare and Medicaid Services (CMS) of 15,459 older patients with HF hospitalized at 149 sites, 24.1% were discharged to SNFs rather than home.[7] Compared with HF patients who were discharged to home, patients discharged to SNFs had a 76% increased risk of death 1 year later.[7] Similar results were reported by Dolansky et al, who found that among 1,188,711 records of older adults hospitalized for HF, 25.3% were discharged to SNFs.[8]

Skilled nursing facilities have been defined in the literature in various ways. The Institute for Healthcare Improvement identified SNFs as an umbrella term for different levels of care settings to which patients are transferred after hospitalization, such as nursing homes, skilled nursing facilities, long-term care facilities, acute rehabilitation facilities, and postacute care facilities.[9] The CMS defined SNFs as a type of postacute institution used to provide skilled nursing care to patients with complex health needs following hospitalizations.[10] To qualify for SNF placement, Medicare patients need to have been hospitalized for ≥3 days and require skilled nursing or rehabilitation services daily

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See page 869 for disclosure information.

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for the condition related to the hospitalization.[11] For eligible patients, CMS provides full reimbursement for the first 20 days at SNFs and partial reimbursement for days 21−100.[11] Approximately 40% of Medicare beneficiaries are discharged from hospitals to postacute settings and about one-half enter a setting that provides skilled nursing care or rehabilitation services.[12,13] The number of admissions to SNFs has increased in the past decade because of greater disease severity, multiple comorbidities among elders, and technologic advances that prolong life.[11] From 2000 to 2006, admissions to SNFs increased from 1.3 million to 1.79 million and in 2006 were associated with 419,669 (23.5%) rehospitalizations that occurred within 30 days of hospital discharge, at a Medicare cost of >$4.34 billion. The average reimbursement per rehospitalization was $10,352.[12,13] Five health conditions were responsible for 78% of these rehospitalizations: HF, respiratory infection, urinary tract infection, sepsis, and electrolyte imbalance.[12,13] Repeated hospitalizations and multiple transitions from one setting to another increase patients' risk for adverse health outcomes (eg, medication errors, delirium, functional loss, myocardial cell loss) and suffering.[13−16] Therefore, the present literature review was conducted to evaluate the existing state of knowledge about HF patients discharged to and residing at SNFs to provide a foundation for future observational studies and randomized controlled trials.

Methods

Search Strategies

A literature search was conducted of Medline, CINAHL, PubMed, and Google Scholar with dates from 1965 to June 30, 2011. The search key words were heart failure, congestive heart failure, skilled care, skilled nursing care, skilled nursing facilities, nursing home, postacute care, postacute services, and subacute care. The search was limited to the English language. All publications were reviewed by the authors and categorized into 1 of 5 groups: 1) case studies; 2) editorials; 3) clinical care; 4) evaluation projects; and 5) data-based publications. The data-based publications were critiqued individually by all authors using established criteria for evaluation of research.[17,18]

Results

The search resulted in 33 publications. Four additional publications retrieved by hand search were included in the review. The 37 publications were categorized as follows: 1 case study, 1 editorial, 3 clinical care publications, 3 evaluation projects, and 29 data-based publications.[7,8,19−53]

Group 1: Case Study

A case study reported a patient's description of his experience of being hospitalized for HF in the intensive care unit followed by a stay at a SNF.[50] The patient described his hospital stay as a struggle for survival from cardiac and respiratory failure in the intensive care unit. He described his stay at the SNF as positive because of family and staff support.

Group 2: Editorial

An editorial provided commentary about a data-based publication about the high numbers of HF patients discharged to SNFs and the high mortality for these patients, and it offered directions for future research.[48]

Group 3: Clinical Care

Three publications addressed ways to improve clinical care of HF patients residing in postacute settings.[26,33,37] Harrington[33] administered a questionnaire to assess the adequacy of HF care and its positive influence on reducing hospitalizations and improving quality of life. Davidson et al[26] described models of HF care used in Australia, including home-based programs, general practitioner models, cardiac rehabilitation, telephone monitoring, integrated palliative care models, and residential elder care. Problems in care delivery (eg, lack of resources, inefficient communication between providers in acute and chronic care institutions) were noted and recommendations for improvement were offered. Lekan et al[37] described development and implementation of the Connected Learning Model, an educational program implemented by a geriatrics advanced practice nurse to increase HF symptom recognition among the staff in a nursing home. Although data were not presented, the authors reported that the model improved the staff's ability to recognize HF symptoms and notify providers of changing health status.

Group 4: Evaluation Projects

Three publications described evaluation projects completed to improve outcomes for HF patients residing at SNFs.[35,42,52] In a brief report, Valle et al[52] described evaluation of the effects of guideline-based management on outcomes among 68 HF patients (mean age 87 years) residing in a nursing home. Study details were not presented, but the authors reported that application of guidelines decreased hospital readmission from 5 to 0 admissions, shortened length of hospital stay from 41 to 0 days, and lowered cost of hospitalization by 10,620,000 Italian lira ($7,264 US) during the study period.

Jacobs[35] evaluated a nurse case management quality improvement program for HF patients discharged to SNFs after hospitalization. This 6-month program was designed to improve communication about discharge needs (eg, weight and symptom monitoring), build partnerships between staff employed at acute care facilities and those at SNFs, provide continuity of care across the facilities, and thereby reduce rates of hospital readmission from SNFs. Communication was increased as evidenced by number of phone calls between facilities, and rates of rehospitalization decreased from 50% to 11.32% over 6 months. The lower rehospitalization rate was estimated to result in a cost savings of $16,748 over the 6-month duration of the project. Martinen