Multidisciplinary approach reduced readmissions in patients with CHF


Objective
To determine the effect of a multidisciplinary approach to heart failure care in elderly patients who were recently hospitalized for congestive heart failure (CHF).

Design
Randomized controlled trial with 90-day follow-up.

Setting
University medical center in Missouri, USA.

Patients
282 patients ≥ 70 years of age (mean age 79 yr, 63% women, 55% black) who were hospitalized for CHF between July 1990 and June 1994. Exclusion criteria were plans to enter a long-term care facility, dementia or psychiatric illness, terminal illness, expected survival < 3 months, or refusal to participate. Follow-up was complete.

Intervention
Patients were allocated to a multidisciplinary intervention (n = 140) or to conventional care (n = 140). The intervention consisted of intensive in-hospital educational sessions about CHF given by a cardiovascular nurse, individualized dietary assessment and instruction by a dietician, social services consultation to facilitate discharge, medication recommendations by a geriatric cardiologist, and follow-up after discharge with home visits and telephone calls. Patients in the conventional care group received standard treatments and services ordered by their primary physician.

Main Outcome Measures
The primary outcome was survival for 90 days without readmission. Secondary outcomes were number of readmissions for any cause, number of readmissions for CHF, number of days spent in the hospital during follow-up, quality-of-life scores, and overall cost of care.

Main Results
Analysis was by intention to treat. 91 patients (64.1%) in the multidisciplinary care group survived for 90 days without readmission compared with 75 patients (53.6%) in the conventional care group (P = 0.09). The multidisciplinary approach to care led to fewer readmissions for any reason at 90 days than did conventional care (53 vs 94 readmissions, P = 0.02) and fewer readmissions for CHF (24 vs 54 readmissions, P = 0.04). Patients in the multidisciplinary care group spent fewer mean days per patient in the hospital than did patients in the conventional care group (3.9 vs 6.2 days, P = 0.04). For 126 patients who were given the Chronic Heart Failure Questionnaire, quality-of-life scores improved more in patients in the multidisciplinary care group than in patients in the conventional care group (mean change in score 22.1 vs 11.3, P = 0.001). The overall cost of care per patient-month of follow-up was $153 less in the multidisciplinary care group.

Conclusion
A multidisciplinary approach to care for elderly patients recently hospitalized for congestive heart failure reduced the number of hospital readmissions and the number of days spent in the hospital and improved quality of life but did not affect 90-day readmission-free survival.

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Costs that the health care system can absorb (1). In the present health care "market," new systems of care are being created that are supposed to be cost-effective—systems that are expensive to operate but are not being evaluated to confirm their intended efficiencies. These authors should be congratulated for rigorously evaluating their interventions, but I would be reluctant to say that the application of these 2 studies would lead to a decrease in total health care cost; rather, it might shift some of the cost to other providers.

Elderly persons use many support services. One study (2) showed that as many as 88% of elderly patients discharged from the hospital required some form of home care. Bull (3) suggests that 2 readily available variables—age and functional ability before discharge—predict whether home care will be beneficial. Solomon and colleagues (4) add educational level, social support, impairment of ADL, and previous home care use as major predictors.

Key to the success of home care or outreach preventive services is the availability of programs that are acceptable to the patient and suited to the environment in which the patient lives. An important goal of any program is to reduce the use of health care services, which includes not only hospital and nursing home admissions but also home care visits. Most elderly persons want to be independent. To the extent that our services allow that to happen, the patient will have a valuable outcome. Simply calling the patient after discharge has been shown to reduce the use of health care services (5). Future research that helps to determine the proper balance of services for each patient will be welcomed.}

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References
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