Evaluating Telehealth Home Care for Elderly Veterans with Congestive Heart Failure

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BACKGROUND / RATIONALE:

Congestive heart failure (CHF) is one of the most common reasons for hospitalization in patients aged 65 years and older. Many hospitalizations for CHF are potentially preventable if the warning signs of decompensation are recognized and treated before the situation becomes emergent. Home-based intervention programs have reduced unplanned readmission rates for patients with CHF by up to 50 percent. Using advanced telecommunications technologies it is now possible to provide greatly improved access and availability of services in a more timely and cost effective manner directly to patients' homes. Although telehealth offers a number of theoretical advantages, few empirical studies have compared telehealth to traditional delivery modes, and virtually no studies have compared the effectiveness of alternative telehealth applications.

OBJECTIVE (S):

The purpose of this study is to compare the effectiveness and resource use of two telehealth interventions to traditional care provided for recently discharged outpatients with CHF. Four hypotheses will be tested. Compared to subjects who receive usual care, subjects who receive telehealth interventions (telephone or interactive video) following discharge will: 1) have lower readmission rates; 2) report improved quality of life, self-efficacy, and satisfaction with care; 3) use fewer resources, including hospital days, urgent care visits, and telephone calls; and 4) have higher survival rates.

METHODS:

The study is a randomized controlled clinical trial. We will compare usual care to an intervention delivered by either telephone or interactive video to veterans following discharge from the hospital. A total of 198 subjects will be enrolled over three years. Subjects in the treatment groups (telephone or interactive video) will receive the intervention for 90 days following discharge from the hospital. Data to be collected includes measures of quality of life, self-efficacy, satisfaction, resource use, and mortality.

FINDINGS / RESULTS:

Subject enrollment began July 1, 2002; 123 subjects have been enrolled as of 1/09/05. No findings to report.

STATUS:

Project work is ongoing.

IMPACT:

Telehealth care will enable earlier detection of key clinical symptoms, triggering early intervention and thus reducing the need for hospitalization. Reduced hospitalization will result in decreased overall costs, and improved outcomes for veterans with CHF.

PUBLICATIONS:

Journal Articles

1. Wakefield BJ, Holman JE, Ray A, Morse J, Kiensie M. Nurse and patient preferences for telehealth home care. Geriatric Times 2004; V: 27-30.

2. Wakefield BJ, Holman JE, Ray A, Morse J, Kienzle MG. Nurse and patient communication via low- and high-bandwidth home telecare systems. Journal of Telemedicine and Telecare 2004; 10: 156-159.

Book Chapters

3. Bylund C, Wakefield B, Ray A, Morse J. Bringing care home to the rural elderly: clinician and patient satisfaction with telehealth communication. In: Whitten P, Cook D, editor. Understanding health communications technologies: a case book approach. San Francisco, CA: Jossey-Bass, 2004.