Specialized Care from Hospital to Home Improves the Health of Elderly with Heart Failure, Cuts Costs to the Health Care System

A new study shows that when elderly heart-failure patients receive specialized nursing care throughout their hospital stay and at home following hospital discharge, the patients have a better quality of life and have fewer hospital readmissions. Instead of costing more money for this specialized care, the study showed that the care resulted in a nearly 38% savings in Medicare costs. The study, funded by the National Institute of Nursing Research, one of the National Institutes of Health, appears in the May, 2004 issue of the *Journal of American Geriatrics Society*.

The study, conducted by researchers at the University of Pennsylvania and led by Professor of Nursing Mary Naylor, PhD, RN, demonstrates a model of care that has important implications for the nation's health care system. Elders with heart-failure typically have the highest rate of hospitalization, at a cost exceeding $24 billion annually. Further, the study points out that this patient group is representative of a growing segment of the U.S. population. Americans are living longer with chronic health problems and experiencing breakdowns in care during multiple transitions from hospital to home that affect their quality of life and consume substantial health care resources.

Six Philadelphia academic and community hospitals participated in the study — the first multi-site assessment of a transitional care intervention targeting the serious health problems and risk factors common among elders throughout an acute episode of heart failure on a spectrum of clinical and economic outcomes. Advanced practice nurses (APNs, nurses with Master's degrees) coordinated the care provided by the patients' physicians, pharmacists, social workers, RNs, and other health team members for high risk older adults throughout an episode of acute illness.

The study found that while the total costs of providing this level of care for patients in the APN group was nearly double that provided to patients receiving routine care, this increase was more than offset by cost savings from fewer hospital readmissions. The higher level of care actually saves taxpayers an average of $4,845 per patient, the researchers found — a 37.6 percent savings over 12 months.

As a result of these findings, a major health insurer has launched a $1 million pilot program to test Dr. Naylor's research in practice.
Participating APNs were given specialized training that emphasized application of educational and behavioral strategies in the home to address patients' and caregivers' unique learning needs. "The goal was to provide these chronically ill patients and their families with the knowledge and management skills necessary to prevent poor outcomes and avoid the need for acute care," said Dr. Naylor. "Working with a major insurer means the nation's elders will immediately reap the benefits of our research, she added.

A randomized sample of 239 patients 65 years or older with a diagnosis of heart failure were assigned to either the group receiving transitional care or a control group that received routine care. Patients in the transitional care group were visited by advanced practice nurses within 24 hours of hospital admission and, upon discharge, the nurses conducted home visits within 24 hours of discharge and were available by telephone. Patients were followed for one year after hospital discharge.

"To date, transitional care programs such as this have typically not been adopted because of lack of Medicare reimbursement, the system's focus on acute versus chronic care, and the organization of care into distinct silos such as hospitals or home care without a safety net to connect them," said Dr. Naylor. The Penn researchers report that a major health insurer will begin to implement the Penn team's model of care in New Jersey, Delaware and Pennsylvania this summer. Older adults at high risk for poor outcomes will participate in the test marketing to verify the researchers' quality of care and cost findings in the commercial marketplace. The Commonwealth Fund and the Jacob and Valeria Langeloth Foundation will fund marketing strategies and product development for the translation of this research into practice and evaluation of the pilot testing in the mid-Atlantic region.

"With Americans living longer, chronic health issues affecting the elderly are overtaking acute illnesses as a major concern. It is becoming increasingly important to develop and test strategies that will help these vulnerable, at-risk populations live healthier, more independent lives," said NINR Director Dr. Patricia A. Grady, PhD, RN, FAAN. It is heartening to see a public-private partnership that facilitates translating research results to practice. The success of the insurance company's pilot program will mean better quality of care and improved health for many, with the added benefit of reducing costs," noted Dr. Grady.