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Memory problems, emotional stress result in early readmissions of heart patients

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Heart patients' mental state and thinking abilities may help predict whether costly and potentially dangerous early hospital readmission will follow their release after treatment, according to the results of a significant new study by Henry Ford Hospital researchers.

The findings have important implications for the health care industry as it struggles to contain unnecessary costs, according to the study's lead author, Mark W. Ketterer, Ph.D., a psychologist and administrator for Henry Ford.

The study is published online in *Psychosomatics*.

"Wasted resources have become a central concern in American health care, including readmission soon after a patient has been released from hospital care," Dr. Ketterer says.

"Because heart failure has one of the highest readmission rates of all conditions that have been studied in Medicare and Medicaid populations, we decided to focus on it and try to identify predictors for early readmission."

What was found, Ketterer explains, was that a psychiatric history of depression, anxiety and other mood disorders, as well as impairments in a patient's ability to think, remember and reason, may well be such predictors.

"Given both the exorbitant fiscal costs and known health risks of hospitalization, including exposure to drug-resistant infections and medical errors, it could be well worth further study to test our findings." he adds.

Currently, Medicare is penalizing hospitals for what it considers excessive readmission rates. Last month, Medicare said it will access $227 million in fines against hospitals in 49 states as part of an initiative to reduce the number of patients readmitted within a month. Medicare said that 2,225 hospitals will see payments reduced for a year. Henry Ford Hospital is one of hospitals that will see a reduction in payments starting Oct. 1.

In the study, the researchers chose 84 patients who were admitted to Henry Ford Hospital for treatment of acute congestive heart failure. Each was interviewed for basic clinical and demographic information and asked to complete several questionnaires measuring depression, anxiety and spirituality.

Their medical risk factors – including other illnesses and their severity – and behavioral risk factors – including depression and such cognitive impairments as loss of reasoning, planning, forgetfulness and other reduced mental functions – as well as admissions during the past year and readmissions during the previous 30 days were recorded.

The patient group was 62 percent male with an average age of 66. Central nervous system disorders – including Alzheimer's, dementia, closed-head injury and others – were present in 21 percent. Nearly 70 percent lived with a family member, 24 percent acknowledged a psychiatric history, 36 percent used or had used antidepressants, 40 percent had coronary artery disease, 43 percent had diabetes, 86 percent had hypertension, 20 percent had chronic obstructive pulmonary disease, 48 percent had chronic kidney disease and 24 percent were alcohol or

drug abusers.

The researchers found that depression, a history of substance abuse, and a history of coronary artery disease were related to hospital admissions during the previous year.

Factors in 30-day readmission rates included immediate memory problems and a history of psychiatric treatment and/or the use of an antidepressant. The severity of congestive heart failure, however, was not a factor in either admission or readmission rates.

"Our results agree with several recent studies in finding an adverse impact of depression on admission and readmission rates," Ketterer says.

"In addition, substance abuse and chronic kidney disease may also adversely impact these rates in congestive heart failure patients.

"Even severe heart disease, except in the extreme, appears to be manageable after release from the hospital unless it's complicated by one or more of the behavioral factors."

But perhaps most important in these findings is the relationship between emotional stress and/or cognitive impairment and early readmission to the hospital.

"Both suggest a possible way to predict readmission and avoid it," Ketterer says.

Educating patients about their mental illness, as well as involving live-in family members in helping with the patient's medications, and keeping medical appointments may also help reduce hospital readmissions, the study concluded.

Provided by Henry Ford Health System