Emergency Treatment Strategies, Better Communication Among Health Care Workers Reduce Heart Attack Patient Deaths by 19 Percent, Says AHJ Published Study

Four western New York hospitals using emergency treatment strategies emphasizing evidence-based therapy and better communication among health care providers reduced heart attack patient deaths by 19 percent for up to one year after patient discharge. New critical care pathway delivers better results, according to HealthCore-managed prospective research study

Wilmington, DE (PRWEB) February 11, 2009 -- Four western New York hospitals using emergency treatment strategies emphasizing evidence-based therapy and better communication among health care providers reduced heart attack patient deaths by 19 percent for up to one year after patient discharge.

The prospective research study, "Acute Coronary Syndrome Emergency Treatment Strategies: Improved Treatment and Reduced Mortality in Patients with Acute Coronary Syndrome Using Guideline-based Critical Care Pathways," was published in January in the American Heart Journal.

"The study shows that when you improve communication among departments about patient care, and when you take key information from published medical journals and apply them to every day medicine, you can make a significant difference in patient outcomes and the quality of care they receive," said study lead author and practicing cardiologist Dr. John Corbelli, who also serves as associate clinical professor of medicine for the State University of New York at Buffalo School of Medicine and Biomedical Sciences.

This is the first study to investigate an acute coronary syndrome critical care pathway approach in a population of patients encompassing the total acute coronary syndrome management spectrum. WellPoint subsidiary, HealthCore Inc., performed the outcomes research for this study based on research funding from Sanofi-Aventis, Bristol-Myers Squibb and the Kaleida Health Foundation.

"ACSETS was derived from the synergy between the cardiologists and emergency department physicians," said Dr. Dave Janicke, study co-author and clinical associate professor of emergency medicine at State University of New York at Buffalo School of Medicine and Biomedical Sciences. "The ACSETS guideline-driving pathway is initiated as soon as the ACS patient arrives in the Emergency Department and is subsequently carried through hospitalization including discharge medications and follow-up."

The prospective study demonstrated that patients received better care for acute coronary syndrome, including fewer days in the hospital and more medically appropriate use of medication, when the ACSETS critical care pathway was used. The control group was made up of patients who had been treated at the four hospitals before ACSETS was implemented.

"Previous work has established that hospitals adhering to certain performance measures in treating patients with heart attack had lower mortality," said Corbelli. "We wanted to know if we could improve the mortality rates of these patients by developing a new approach--or a new critical pathway--to better assist medical staff in putting these published guidelines into practice."

Within the first 24 hours after arrival in the emergency department, at discharge and during 12 months
following discharge, more ACSETS patients than pre-ACSETS patients received all eight guideline-based acute coronary syndrome treatment medications studied.

"Post discharge readmission and mortality has been shown to be a major issue in managing patients with ACS," said Mark Cziraky, study co-author and HealthCore vice president of research development and operations. "The fact that the mortality rate is lower one year after discharge in ACS patients demonstrates that they continued their therapy after leaving the hospital."

At discharge, ACSETS patients had their medications reviewed so that the appropriate drug therapies were prescribed. Patients were educated to understand the impact of their medications and the importance of compliance with the prescribed regimen. Study authors also met with local managed care groups to ensure that the design of their health plans allowed ACSETS patients easy access to cardiac therapies.

While the study showed no difference in in-patient mortality rates among the two groups, it did show that the ACSETS patients admitted for heart attack had a mortality rate of 19 percent less than the control group for up to one year after discharge.

"After discharge, higher refill rates were seen for the ACSETS group than for the pre-ACSETS group, with that difference showing statistical significance for clopidogrel and statins," Cziraky said.

ACSETS, based on guidelines established by the American College of Cardiology and the American Heart Association, uses pre-printed order sheets customized for use in the emergency department, inpatient and discharge that simply the task of matching intensity of therapy to risk. Rather than follow the normal procedure of creating a new order sheet at every patient stop—from the ER to the floor and then to discharge—the same set of orders stayed with the patients as they made their journeys through the hospital.

Physicians and other medical staff members were trained on the ACSETS order sheets for a period over 26 weeks before the study began. ACSETS educates medical staff members throughout the continuum of patient care regarding key elements of the guidelines and encourages ready adherence to those guidelines at the bedside in a time-efficient manner.

About the study

ACSETS is used for the treatment of acute coronary syndrome patients with unstable angina, non-ST-segment elevation myocardial infarction (NSTEMI), or ST-elevation myocardial infarction (STEMI). The study group included 1,709 ACSETS patients and 1,240 pre-ACSETS control patients.

The study compares acute coronary syndrome care pre (Jan. 2, 2002) and post (May 1, 2003 to Aug. 31, 2004) in a four-hospital system in western New York state. Two hospitals were urban with cardiac catherization facilities and two other hospitals were suburban and lacked cardiac catherization facilities.

All patients were admitted to the hospital through the emergency department and discharged with a diagnosis of unstable angina, NSTEMI or STEMI. The intervention group consisted of patients with at least one ACSETS order sheet in their medical chart.

About HealthCore

HealthCore, based in Wilmington, Del., is the clinical outcomes research subsidiary of WellPoint. HealthCore
has a team of highly experienced researchers including physicians, biostatisticians, pharmacists, epidemiologists, health economists and other scientists who study the "real world" safety and effectiveness of drugs, medical devices and care management interventions. HealthCore offers insight on how to best use this data and communicates these findings to health care decision-makers to support evidence-based medicine, product development decisions, safety monitoring, coverage decisions, process improvement and overall cost-effective health care. For more information, go to www.healthcore.com.

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