John Muir Health Pilots Early Warning System For Heart Attack Patients

The Associated Press

WALNUT CREEK, Calif.--(BUSINESS WIRE)--Feb 27, 2013--Reducing the time it takes heart attack patients to receive treatment significantly increases their chances of survival and minimizes long-term damage to the heart and brain.

John Muir Health's Clinical Research Center recently began a clinical trial to test the effectiveness and safety of an implantable cardiac monitor and alert system that acts as an early warning system. The device is designed to reduce the time it takes patients to get to the emergency room during an impending heart attack.

John Muir Health is one of the first medical facilities in the country to participate in the ALERTS US trial for the AngelMed Guardian implantable cardiac monitor and alert system (Guardian System). Patients potentially eligible for the study include those who have been diagnosed with unstable angina or who, within the past six months, have had a heart attack, undergone coronary artery bypass surgery or are scheduled for that surgery within the next six months.

"The Guardian System is designed to track significant changes in the heart's electrical signal," said Ayman Hosny, M.D., a cardiologist at John Muir Health and principal investigator for the ALERTS trial. "When someone has a heart attack, it is typically the result of a blood clot closing one of the three major coronary arteries. When this happens, there is a shift in the heart's electrical signal. Notification of that shift can be the difference between a debilitating, even fatal, heart attack and life-saving treatment." According to David Fischell, Ph.D., CEO, AngelMed, the objective of the ALERTS trial is to test the Guardian System's ability to detect this electrical shift and provide an early warning system to patients.

The AngelMed Guardian System is comprised of an internal implantable device, a standard pacemaker lead and an external telemetry device. The device monitors the heart's electrical signal 24 hours-a-day, 7 days-a-week looking for changes that may indicate the heart is not getting enough oxygen, which may lead to a heart attack. When the implanted monitor detects a potential heart attack, it vibrates, alerting the person to take action. In addition to the vibration, it communicates with a pager-sized device that both beeps and flashes, letting the person know that they need to either call their doctor or 911.

Once the person is at the hospital, their doctor can retrieve information collected by the implanted device to a computer. This information can help the doctor determine the best course of action in providing treatment and care.

According to the American Heart Association, one out of every six deaths in the United States is attributable to coronary heart disease. Each year, an estimated

785,000 Americans will have a new coronary attack, and 470,000 will have a recurrent attack. Approximately every 34 seconds, an American will have a heart attack. It is also estimated that an additional 195,000 people annually will have a silent heart attack with few, if any, symptoms.

“If the Guardian system proves to be effective in early detection and warning of potentially life-threatening heart conditions, we may be able to shift the model of care for high-risk patients to focus on early intervention at the onset of a heart attack,” said Dr. Hosny.

For more information on the AngelMed Guardian System or participation in the ALERTS study, contact the John Muir Health Clinical Research Center at 925-674-2580.

About John Muir Health Clinical Research Center
The John Muir Health Clinical Research Center has participated in over 200 clinical research studies through National Cancer Institute–sponsored cooperative groups, as well as pharmaceutical and biotechnological industry-sponsored studies. Our research experience includes Phase II, III, and IV drug and device clinical research studies for prevention, early detection and treatment of various conditions. Many John Muir Health Clinical Research Center staff are certified through the Association of Clinical Research Professionals (ACRP) or the Society of Clinical Research Associates (SoCRA).

About John Muir Health
John Muir Health is a nationally recognized, not-for-profit health care organization located east of San Francisco, serving patients in Contra Costa, eastern Alameda and southern Solano Counties. It includes a network of 925 primary care and specialty physicians, more than 6,000 employees, medical centers in Concord and Walnut Creek, including the county’s only trauma center, and a Behavioral Health Center. The health system also offers a full-range of medical services, including primary care, outpatient, lab and imaging services, and is widely recognized as a leader in many specialties – neurosciences, orthopedic, cancer, cardiovascular, emergency and high-risk obstetrics care. For more information, visit www.johnmuirhealth.com.

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