In-home AEDs don't improve sudden cardiac arrest survival

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David Callans, MD, a professor of cardiovascular medicine at the University of Pennsylvania School of Medicine, will be available to comment on the New England Journal of Medicine study on the use of automated external defibrillators (AEDs) for sudden cardiac arrests that occur in the home. Callans, author of the journal editorial that accompanies the new study, serves as associate director of electrophysiology for the Penn Health System, and has extensive experience in studying ventricular arrhythmias.

The news that the devices, which deliver shocks to restore the heart to its normal rhythm, don't improve survival for those who have cardiac arrests at home may seem counterintuitive, he says.

"Arguments in favor of access to AEDs have an emotional quality that is not completely captured by success rates or cost efficacy of therapy," Callans says. "But in light of the study findings and the high cost of the devices, future efforts should turn toward education, modification of risk factors and other methods for primary prevention of heart disease."

Of the 170,000 sudden cardiac arrests that occur outside hospitals in the United States each year, about 80 percent take place in the home – with just two percent of victims surviving. The Home Automated External Defibrillator Trial (HAT), led by researchers at the Seattle Institute for Cardiac Research and the Duke University Clinical Research Institute, examined whether placement of automatic external defibrillators in the homes of patients at risk of sudden cardiac arrest would improve these

survival odds.

HAT study researchers found that AEDs, which are increasingly being used in public places like airports and sports arenas, did not significantly improve a patient's chances for survival during cardiac arrests in the home, compared with conventional resuscitation methods like CPR. Results of the study, to be presented April 1 at the American College of Cardiology Annual Scientific Session in Chicago, will be published in the April 24, 2008 print edition of the journal.

Source: University of Pennsylvania