

Cardiovascular Institute researcher: Cancer drug may lower sudden cardiac death risk

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A researcher at the Cardiovascular Institute (CVI) at Rhode Island, The Miriam and Newport hospitals has found that a new class of drugs, originally developed to treat cancer, reduces sudden cardiac death risk after a heart attack. The findings were published online in advance of print in the *Journal of the American College of Cardiology*.

"Currently, there are limited options to reduce [sudden cardiac death](#) following a [heart attack](#)," said principal investigator Samuel C. Dudley, M.D., Ph.D., chief of cardiology at the CVI. "The benefit of most drugs is limited, and they have additional side effects. Defibrillators are an option, but they cannot be safely implanted for 40 days following a heart attack."

Dudley continued, "This finding gives us hope for a new treatment model, and if approved, will provide physicians with new options to lower patients' risk of death from cardiac arrest."

Approximately 525,000 people suffer a first heart attack, or [myocardial infarction](#), each year in the U.S., and there are an estimated 190,000 recurrent heart attacks each year. Following a heart attack, individuals are at an increased risk of sudden cardiac death (SCD).

In this study, researchers evaluated mice that had sustained a heart attack and also had abnormal heartbeats. The study found that inhibition of a protein signal known as c-Src decreased the risk of abnormal heartbeats and sudden cardiac death. This suggests usefulness of c-Src inhibition in preventing arrhythmias associated with heart failure. This use of Src inhibitors for treatment of sudden cardiac death risk has been submitted for a patent.

"More research is needed to evaluate the efficacy of this use of a cancer medication to alleviate risk of sudden cardiac death, but we are hopeful that

what we observed in mice will translate effectively to humans, providing patients and clinicians with a new paradigm for treating this common and life-threatening illness," Dudley said.

Sudden [cardiac death](#) (SCD) is an unexpected death caused by loss of heart function, or sudden [cardiac arrest](#). It is the most common cause of natural death in the U.S., resulting in approximately 325,000 adult deaths in the U.S. each year.

Provided by Lifespan

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