

Common test used on heart patients who need defibrillator implants unnecessary, study says

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New research from McMaster University suggests that a commonly performed test during certain types of heart surgery is not helpful and possibly harmful.

The testing procedure, known as defibrillator testing (DT), is commonly used on people who require implantable cardioverter-defibrillators (ICDs) to prevent sudden cardiac death. It involves putting the patient into cardiac arrest to determine if the defibrillator can first recognize, then successfully shock the patient back into a normal heart rhythm. It requires the use of general anesthesia and is associated with uncommon but potentially life-threatening complications.

"As with many things in medicine, technology evolves and our knowledge grows and we have presented good evidence that the DT, which has been in use for nearly 30 years, is no longer necessary," says lead author Jeff Healey, associate professor of medicine, in the Michael G. DeGroote School of Medicine at McMaster University.

"Without the testing we can save a significant amount of time, money and more importantly, avoid potentially serious complications in patients who are receiving an ICD," he says

Similar to a pacemaker, an ICD is a small battery-powered electrical impulse generator meant as a permanent safeguard against sudden

arrhythmias. Each year, about 300,000 worldwide receive an ICD. Of these, approximately 70 per cent undergo the routine defibrillation testing that often leads to potential complications including possible harm from ICD shocks, says Healey.

"Over the last 10 years, there has been an important shift in practice around the world towards ICD implantation without the test. However, until now, there has been no scientific evidence to support this change in practice. Our study now provides clear and robust evidence to guide practice."

To [test](#) the procedure, Healey initiated a randomized trial, called the "Shockless IMPLant Evaluation (SIMPLE)" study. It is the largest randomized clinical trial of ICD recipients to date, involving a cohort of 2,500 patients worldwide.

The trial compared standard DT in a patient to those who do not have the testing performed and revealed that those who received ICDs without DT did as well as those who underwent the standard testing.

Provided by McMaster University

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