

Deactivation of implantable cardioverter-defibrillators

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1 Device deactivation should be discussed when goals of medical care change

About 7000 implantable cardioverter-defibrillators are implanted annually in Canada to prevent sudden death.¹ However, patient preferences may change, and goals of care may shift to improving quality of life rather than preventing sudden demise.

2 Leaving implantable cardioverter-defibrillators active can lead to unwanted pain and suffering

Shocks from implantable cardioverter-defibrillators can lead to anxiety, pain and fear of repeated shocks, with as many as 20% of patients receiving shocks within the last week of their life.² Most patients perceive their shock as severe, leading to substantial distress for patients and caregivers. In terminal illness, ventricular arrhythmia can be a manifestation of multi-organ failure, and shock from an implantable cardioverter-defibrillator can lead to suffering without reversing the underlying medical condition.

3 Deactivation of an implantable cardioverter-defibrillator is painless, noninvasive and reversible

Deactivation is performed at the bedside by a qualified member of the pacemaker or arrhythmia team after discussion with the treating health care providers, and with the consent of the patient or designated decision maker. Deactivation does not interfere with ongoing pacing function or cause immediate death, does not immediately affect symptoms, and can be reversed if goals of care change.

4 If programmed deactivation is unavailable, a device magnet can be used to prevent shock therapy

A special magnet (available in emergency departments and pacemaker clinics) can be secured to the skin overlying the implantable cardioverter-defibrillator to disable shock therapies in the short term (Figure 1). When the magnet is removed, the device will resume normal function.

5 Deactivation of an implantable cardioverter-defibrillator is a withdrawal of therapy

Legally and ethically, deactivation of the device does not constitute assisted dying. There is no difference between the refusal of implantable cardioverter-defibrillator therapy and a patient's request to withdraw therapy, as all patients have a constitutional right to refuse any treatment.³



Figure 1: Magnet placed over an implantable cardioverter-defibrillator pocket, and taped into place.

References

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