
Subcutaneous or Transvenous Defibrillator Therapy

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TO THE EDITOR: The PRAETORIAN trial involved a smaller cohort of patients with better-preserved ventricular function and intraventricular conduction than those in previous trials of implantable defibrillators.¹⁻³ In this trial, the subcutaneous ICD was not significantly inferior to a standard transvenous ICD.

Sudden death can result from ventricular tachycardia or ventricular fibrillation or from asystole; the transvenous ICD can address any of these by cardioversion, defibrillation, antitachycardia pacing, or standard pacing. The subcutaneous ICD has only two of these four capabilities and addresses only ventricular tachycardia or ventricular fibrillation, not asystole. Cardiac arrest is often asystolic,⁴ particularly when ventricular function is severely impaired or if conduction is disturbed.

The implantation of a device is not a cure but rather the start of a course of therapy. The cost should be calculated from the time of implantation to death. Our local best price for a transvenous ICD equates to approximately \$8,600 in U.S. dollars; the subcutaneous ICD costs approximately \$15,000. These devices have a projected battery longevity of 15.4 and 7.3 years, respectively, for a corresponding yearly cost of approximately \$560 and \$2,050. A higher price demands demonstration of clinical superiority; the current subcutaneous ICD offers half the work for thrice the wage.

Mark M. Gallagher, M.D.

Lisa W.M. Leung, M.B., M.R.C.P.

Zaki Akhtar, M.B., M.R.C.P.

St. George's University Hospitals NHS Foundation Trust
London, United Kingdom
mark_m_gallagher@hotmail.com

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