

52 **SUITABILITY FOR SUBCUTANEOUS IMPLANTABLE
CARDIOVERTER-DEFIBRILLATOR THERAPY – THE
IMPACT OF DIFFERENT SELECTION POLICIES**

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Background With subcutaneous ICDs (S-ICD) not offering the same range of pacing therapies as transvenous systems (T-ICD), it is unclear how many ICD recipients may be suitable for a S-ICD. In addition, the benefit from ICD therapy is dependent on non-sudden cardiac death (SCD) risk. The study aims were to [1] establish how many ICD recipients may be suitable for S-ICD implantation based on a range of selection policies, and [2] determine the impact of S-ICD use on the risk of non-SCD.

Methods We performed a retrospective study of all ICD implants over 5 years (2009–2013). We evaluated how widely the S-ICD could be utilised using the following indications: (a) Least liberal use – S-ICD used only in patients with inherited channelopathies and idiopathic ventricular fibrillation; (b) Intermediate use – S-ICD also used for SCD primary prevention in hypertrophic cardiomyopathy; (c) Most liberal use – S-ICD also used for SCD primary prevention in coronary artery disease (CAD) and non-ischaemic dilated cardiomyopathy (DCM) who have a narrow QRS complex (120msec). Given the potential impact of age on the benefit from S-ICDs, we stratified our results by implant age (70, 60 and 50 years). Non-SCD risk was quantified using the MADIT-II risk score (score 0–5, 5 (highest risk)). Mann-Whitney U testing was used to compare risk scores.

Results Over the 5 years, there were 402 implants (79% male, age 70 ± 13 years). After exclusion of patients implanted with a CRT-D device or with a pacing indication, 219 remained for consideration of a S-ICD. Using our definition of least liberal use, intermediate use, and most liberal use, the number of patients considered suitable for a S-ICD was 18 (4.5%), 30 (7.5%) and 77 (19.2%), respectively. Age as a discriminator had a significant impact on the proportion of patients considered suitable for a S-ICD. This was predominantly due to a reduction in the number of patients with CAD and DCM being considered for a prophylactic device. Using the most liberal definition, the number of potential S-ICD candidates dropped from 52 (12.9%) in those 70 years old at implant, to 34 (8.5%) for 60 years, to 20 (5%) using 50 years as the cut-off.

The MADIT-II score was 0.22 ± 0.1 , 0.47 ± 0.1 and 0.96 ± 0.1 , in the least liberal, intermediate and most liberal use S-ICD groups, respectively. The score was 2.07 ± 0.1 , 2.11 ± 0.1 and 2.24 ± 0.1 in the respective T-ICD groups. The mean MADIT-II score in the S-ICD group was significantly lower than that in the respective T-ICD group ($p < 0.0001$, for all three selection policies).

Conclusions While up to one-fifth of patients currently receiving ICDs may be suitable for a S-ICD, this result is dependent on both which patient groups the S-ICD is used in and whether an age cut-off is applied. The cohort of patients suitable for a S-ICD also have a lower risk of non-SCD compared to those receiving conventional T-ICDs.

53 **PLEASE DONT SHOCK ME: A QI PROJECT ON
IMPLANTABLE CARDIOVERTER DEFIBRILLATORS (ICDS)
AT THE END OF LIFE CARE & DNAR**

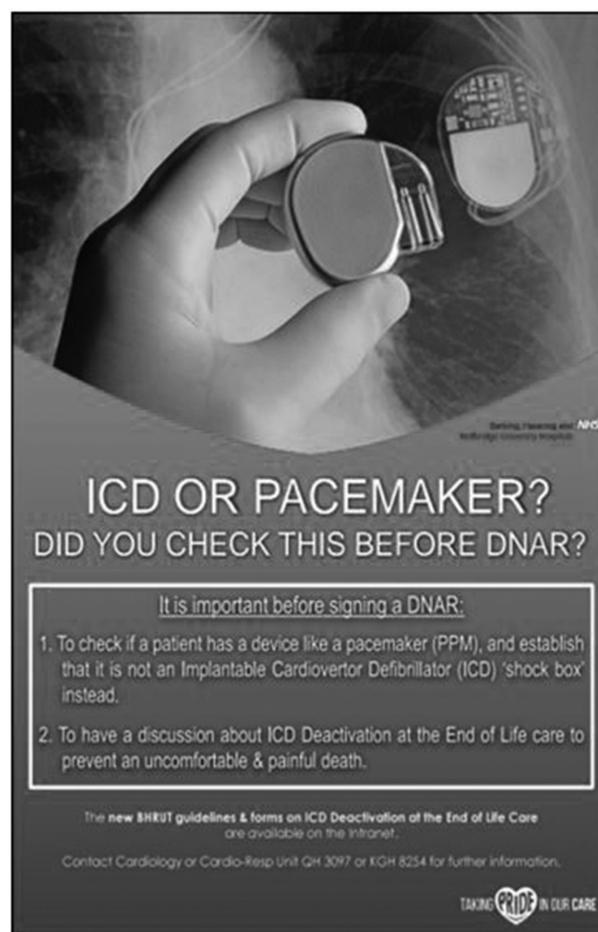
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Introduction There is an increase in Implantable Cardioverter Defibrillators (ICDs) and Cardiac Resynchronization Therapy Defibrillators (CRT-Ds) being implanted every year. With patients living longer, the number of patients reaching the end of life with an active ICD or CRT-D is also on the rise. These can be missed or be mistaken for a pacemaker, especially during the end of life care.

Problem In 2015, at our hospital, 75% of patients with an ICD/CRT-D who died had no deactivation. Some of these patients did receive painful and undesirable shocks from their active ICD/CRT-D upon death; unfortunately witnessed by some of their worried families. The hospital staff were surveyed about the awareness on ICDs/CRT-Ds at the end of life and upon death, which revealed >60% of staff were unaware what to do.

Aims/Methodology A QI project was established to increase the number of ICD/CRT-D deactivation discussions and switch



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