



Abstract 96 Figure 1

flecainide occurred outside this window emphasising the role for ongoing follow up and ECG monitoring.

Conflict of Interest None

97 PREDICTORS OF CARDIAC DEVICE IMPLANTATION IN PATIENTS WITH IMPLANTABLE LOOP RECORDERS

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Introduction Cardiac syncope occurs when the heart fails to maintain cardiac output to match cerebral need and can occur due to either mechanical/structural defect of the heart or secondary to an arrhythmia. It has a raised 1-year mortality with some figures estimating this as high as 30%. Implantable loop recorders (ILR) are a useful diagnostic tool in patients presenting with syncope or pre-syncope to ascertain a cardiac cause. A higher number of patients are presenting with advancing age and undergoing ILR implantation. Subsequently, they end up requiring a cardiac implantable electronic device (CIED) implantation, adding to additional costs, exposure to procedural complications and frequent hospitalisations. The aim of this study was to investigate the number of patients undergoing CIED implantation following implantation of ILRs for syncope and identify predictors of CIED implantation in patients presenting with syncope.

Methods A retrospective analysis of 736 patients who underwent ILR implantation at our teaching hospital trust between November 2012 to October 2020. Data on demographics, clinical characteristics, pathology results, ECGs, holter findings and CIED implanted was collected using the local electronic patient record system. The data was analysed using SPSS software. Univariable and multivariable regression analysis and

Abstract 97 Table 1 Linear regression analysis of predictors of CIED implantation

Variable	Beta (95% confidence interval)	p value
Univariate		
Age	0.007 (0.005 – 0.008)	<0.001
Sex	-0.104 (-0.165 – -0.044)	0.001
Presence of CAD	0.102 (0.025 – 0.179)	0.01
LV Function	-0.151 (-0.237 – -0.064)	0.001
Presence of hypertension	0.166 (0.106 – 0.227)	<0.001
Presence of valvular heart disease	0.103 (0.028 – 0.178)	0.007
History of previous stroke/TIA	0.063 (-0.032 – 0.159)	0.20
Presence of CKD	0.148 (0.055 – 0.241)	0.002
Multivariate		
Age	0.006 (0.004 – 0.007)	<0.001
Sex	-0.081 (-0.139 – -0.023)	0.006
LV Function	-0.089 (-0.173 – -0.006)	0.04
Presence of hypertension	0.068 (0.004 – 0.132)	0.04

ROC curve analysis was carried out to determine prediction model for CIED implantation.

Results The mean age of patients who underwent an ILR implantation was 65 +/- 19 years. 22% of patients required CIED implantation, 68% of patients did not require a cardiac device and were safely discharged and 10% of patients died during follow up. Age ($p < 0.001$), male sex ($p = 0.006$), impaired left ventricular function ($p = 0.04$) and presence of hypertension ($p = 0.04$) were found to be independent predictors of CIED implantation on univariable and multivariable regression analysis (see table 1).

Conclusion Old age, presence of coronary artery disease, impaired left ventricular function and presence of hypertension are inter-linked and in our study were found to be key

predictors of poor prognosis and thus requiring CIED implantation. We propose a scoring system based on age >75, male sex, presence of ischaemic heart disease, heart failure and hypertension as key markers of conduction abnormalities requiring CIED implantation (see figure 1).

Conflict of Interest None

98 CARDIAC RESYNCHRONISATION THERAPY IN THE OVER 85S PRODUCES SIMILAR OUTCOMES AND COMPLICATION RATES AS YOUNGER PATIENTS

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Background Patients over 85 are rarely included in clinical trials but potentially have a lot to gain from interventions. They have less physiological reserve and clinicians may be hesitant to perform procedures for fear of higher complications without clear benefits.

Methods Electronic health record data was reviewed for all patients receiving a cardiac resynchronisation therapy (CRT) device between January 2014 and December 2021. Results 529 CRT procedures were performed. 59 (11%) patients were over 85 (mean 87 ± 1.9 , 85% male) including 1 CRT defibrillator and 58 CRT pacemakers. Indications for device implant are described in table 1.34 (58%) were elective and 25 (42%) were inpatients. 12/25 (48%) were heart failure hospitalisations (HFH). 7/34 (21%) elective cases stayed overnight, 45/59 (76%) patients were discharged within 24 hours of the procedure. 19/25 inpatient cases were discharged within 72 hours of implant. The other 6 remained an inpatient for 1 week (2), 2 weeks (2), 3 weeks (2). Inpatients who remained in hospital more than 7 days from implant had a higher mortality than those discharged within 72 hours (67% vs 21% $p=0.059$), and elective cases (67% vs 36% $p=0.075$), reflecting their lower physiological reserve. Complications occurred in 7 (12%) of which 3 had to be re-admitted. 4 patients experienced a procedural complication. 1 haematoma, 2 coronary sinus dissections and 1 pneumothorax. All resolved without intervention. The haematoma patient was re-admitted for review and observation. 3 patients experienced a complication during follow up. 1 superficial wound infection managed with washout and antibiotics, 1 atrial lead displacement and re-do, (both readmitted) and 1 LV lead failure at four months. 37/59 patients had a home monitor. Mean daily physical activity (PA) at baseline was 0.7 ± 0.5 hours per day. Overall, PA improved in 21/37 (61%) by 1.7 ± 1.3 hours. No change in physical activity was seen in 16 patients. Patients with a HFH after CRT implant had a higher mortality than those who remained out of hospital (78% vs 20% $p=0.001$). Patients with a HFH before CRT implant were no more likely to have a HFH after implant (20%), than those who had never been admitted with HF (12%) ($p=0.48$) 17 patients died during a median follow up of 1.8 years. 9 patients died from left ventricular systolic dysfunction (LVSD), the remainder were non-LVSD deaths (cancer, infection, aortic stenosis, aortic aneurysm rupture, dementia). Of those who died, 10 patients survived less than 1 year (0.5 ± 0.3 years). The remaining 7 survived 2 years or more (3.1 ± 1.3 years).

Conclusion In this selected population of very elderly patients, physical activity improved in 61% of patients. There was a

Abstract 98 Table 1 Indications for CRT implant or left ventricular lead upgrade

Indication	New implants	Upgrades	Ejection Fraction (%)
EF <35% with a left bundle branch block >120ms	18	1	25 ± 9
Bradycardia and impaired LV function	14	2	30 ± 8
Both indications	3	0	22 ± 12
Pacing induced cardiomyopathy	0	21	32 ± 7
Total	35	24	29 ± 9

trend towards a higher mortality in those with prolonged hospital stays and further HFH after CRT implant. Complication rates are similar to those seen in randomised control trials performed in younger patients.

Conflict of Interest nil

99 A MULTI-DIMENSIONAL APPROACH TOWARDS IMPLEMENTING THE EFFECTIVE USE OF REMOTE ELECTROCARDIOGRAPHIC MONITORING – EVALUATION OF CLINICAL CORRELATION AND PATIENT EXPERIENCE

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Background Inappropriate use of telemetry results in the over-use of limited resources, disrupted provider workflow, higher costs of care, and false alarms with resultant alarm fatigue. Moreover, identifying a useful implementation blueprint is an important component of promoting its appropriate use. Telemetry can influence patient experience during their stay as potentially it can disturb sleep, contribute to delirium, and increase patient frustration and anxiety. We stipulate that even minor adjustments to monitoring practices can influence optimised patient care. We aimed to evaluate the co-existing standards of practice regarding use of telemetry across Shrewsbury and Telford Hospital NHS Trust (SaTH). We implemented a patient-centred approach towards quality improvement by incorporating record of patient experience as a tool to guide effective use of this limited resource across our district general hospital settings.

Methods Patients across two hospital sites were selected to conduct a prospective health service evaluation related to the use of telemetry. A likert scale survey was conducted to record patient perspective of telemetry monitoring including a section with an opportunity to provide feedback towards service improvement. The data of patients receiving telemetry was collected from December 2021 to February 2022. American Heart Association (AHA) consensus statement for remote electrocardiographic monitoring was utilized to evaluate the proposed indication for telemetry. However, the rating system helped group patients receiving telemetry monitoring as Class I (definitely indicated), Class II (maybe indicated), or Class III (not indicated). Clinical notes and electronic telemetry system was employed to record parameters including patient demographics; presenting complaint; class (I-III) of indication; whether an indication for telemetry was documented; the length of telemetry; and the details of any significant events that occurred during monitoring including escalation. Where possible, patients were asked to anonymously provide feedback