Cardiac Resynchronisation Therapy in the Older 85S Produces Similar Outcomes and Complication Rates as Younger Patients

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 re-admitted) 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 an 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 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 None

A multi-dimensional approach towards implementing the effective use of remote electrocardiographic monitoring – Evaluation of clinical correlation and patient experience

Background Inappropriate use of telemetry results in the overuse 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