

# IMPROVING ACCESS TO COMPLEX DEVICE IMPLANTATION – CAN WE IDENTIFY UNTREATED APPROPRIATE PATIENTS IN PRIMARY CARE?

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## Introduction

There is limited information on strategies to improve access to complex cardiac implantable electronic device (CIED) implantation and other treatments for heart failure (HF) or left ventricular systolic dysfunction (LVSD). We hypothesized that auditing GP records could identify patients who meet guideline indications for a complex CIED implant, but had not yet received a device. We therefore set out to identify patients within primary care with HF / LVSD requiring optimisation of their current HF treatment through optimisation of medical therapy or complex CIED therapy.

## Methods

GP practices in areas known to have low complex CIED implantation rates were invited to participate. All relevant medical records were audited to assess current management, compliance with NICE guidelines and suitability for a complex CIED implant. Audit review focused on symptoms that may be compatible with HF, those with a history of myocardial infarction, percutaneous or surgical coronary intervention or atrial fibrillation, the last echocardiogram/ECG, ejection fraction  $\leq 35\%$  or moderate severe LVSD and use of prognostic HF drugs. The case finder element of GRASP-HF was used to identify patients with HF / LVSD that had not been correctly coded in GP records. Patients identified as suitable for clinical review were invited to attend face to face consultations at their local GP

practice for an up to date ECG and where Consultant Cardiologists with a specialist interest in CIED formed a management plan. If needed, patients were referred by the Cardiologist into secondary/tertiary care for CIED management and/or treatment optimisation. Outcomes after each patient clinical review were assessed up to 12-months.

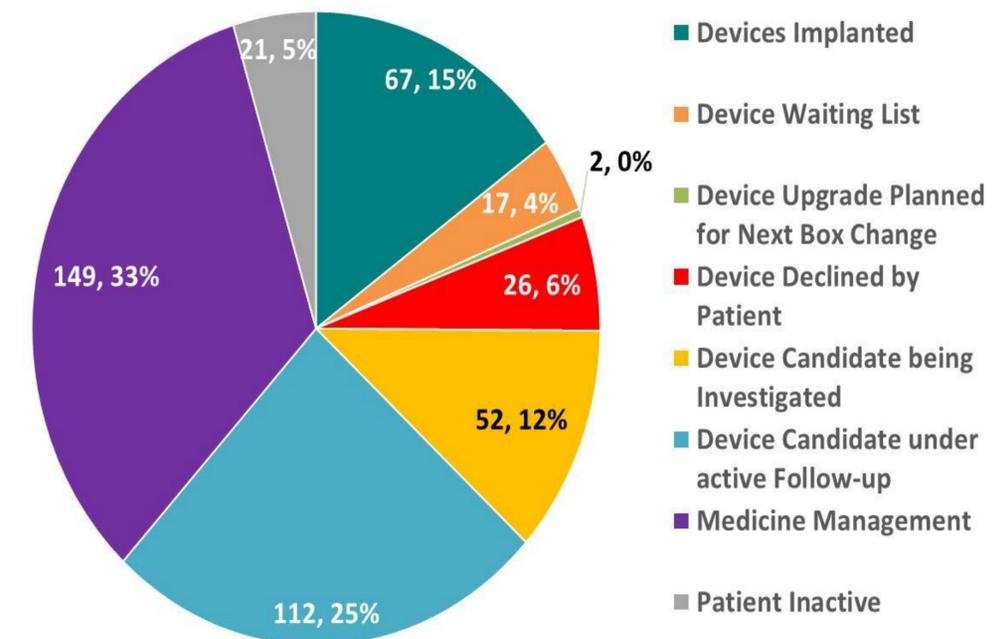
## Results

Audits were carried out between January 2018 - April 2019 across 42 GP practices covering the north west, midlands, and south west of England (population: 520,854 patients). Total combined HF register was 5,842. A further 5,740 patients were identified by the GRASP-HF element.

From 11,582 patients audited, 446 patients invited for a Cardiologist review in the community. Following 1st clinical review, 29 (6.5%) patients were deemed suitable for urgent CIED implantation, 222 (49.7%) were classified as potential CIED candidates requiring both medical optimisation and repeat assessment of LV function, 93 (20.9%) required medicines optimisation only, and 102 (22.9%) did not have any change in their management.

After follow-up, 112 patients were deemed appropriate for CIED implantation (with 67 Implanted, 17 on waiting list, 2 scheduled for upgrade at next box change, and 26 declined intervention).

All outcomes for the 446 patients are shown in the figure below. 19.3% of all patients reviewed either received a CIED implant or are on a waiting list for this (36 CRT-P, 25 ICD, and 25 CRT-D).



## Conclusion

Focused audits within primary care are an effective and efficient way of identifying patients who qualify for a complex CIED and / or optimisation of medical therapy.

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