

Establishing a Collaborative Complex Device Service

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No Conflicts of Interest

BACKGROUND

Complex Devices include Internal Cardioverter Defibrillators (ICD) and Cardiac Resynchronisation Therapy (CRT)¹. They are a specialist commissioned service due to high system cost and the complexity of patient selection and follow-up, which requires highly trained staff members.

Newcastle NHS Foundation trust (NUTH) is a tertiary centre delivering ~400 complex devices per year. COVID-19 caused major delays in electrophysiology (EP) waiting lists.

Sunderland Royal Hospital (STSFT) is a District General Hospital 10 miles South of Newcastle offering; 2 cardiac catheter labs, 24/7 Coronary Care, Percutaneous Coronary Intervention and consultant cover, with several Band 7 physiologists competent in complex follow-up; but is not commissioned for complex implantation.

We sought to form better networks of care and increase local access to devices². A collaboration between trusts to alleviate EP waiting lists and facilitate local provision of complex implants to the Sunderland population was developed.

OBJECTIVES

- NUTH and STSFT to collaborate to deliver complex device implants in Sunderland Royal Hospital
- Commence weekly specialist device clinic at STSFT with support from virtual EP MDT for new and follow-up assessments
- Utilise available regional lab space to tackle tertiary centre EP waiting lists

METHOD

Planning: June-October 2021:

- Resources identified. 3x NUTH operators, STSFT lab x1/week, 4x BHS STSFT physiologists, device representative support
- Equipment ordered (I.e. diathermy)
- STSFT consultant mentored for device clinic-patient selection and monitoring
- Standard Operating Procedures (SOP) for patient selection, care pathways, use of EP MDT and out of hours care generated
 - All SOP ratified at CG level for both sites
- Task and finish groups fortnightly with counterparts within admin, finance, operations, physiology identified
- Case costs analysed and approved
 - Monthly delivery and stock checking processes agreed
- Proposal to North East Network and Specialist Commissioners for approval as part of a NUTH COVID relief strategy
- Honorary contracts, IT and parking access for implanters

Implementation October 2021-May 2022

- Prospective audit of patients presented to Network February 2022.
- Continued meetings to review progress, act on feedback
- Case numbers per list increased from 3-4 January 2022

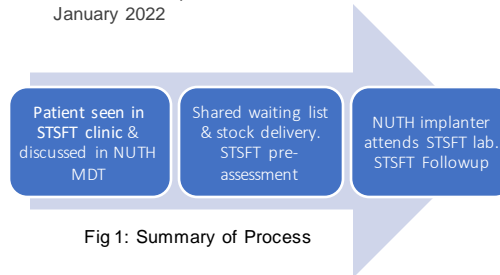


Fig 1: Summary of Process

RESULTS

- Implants performed October 2021-May 2022
- 20 lab sessions delivered by NUTH operators on rotational basis
- Assisted by STSFT device consultant
- 59 complex device cases (Fig 2)
 - Complications within national limits
- NUTH EP Waiting List reduced from Av 78 days to 41 days
- Increased numbers of STSFT patients referred for device therapy from heart failure teams
- Increased STSFT physiologist confidence in complex management, enabled repatriation of patients from NUTH, reducing tertiary FU burden
- Patients prefer to have care and follow-up delivered locally³
- Enabled early exposure to complex devices for DGH-based cardiology and physiology trainees
- Shortened bed stays for some STSFT arrhythmia inpatients



■ ICD ■ CRTD ■ CRTP ■ Upgrade ■ Box Change

Fig 2: Procedures Performed

CHALLENGES

- Engaging stakeholders and HR/planning processes
- Establishing stock delivery, coding and communication pathways for both sites
- High cost per case for NUTH
- Challenging CRT implants for single operator
- Conflicting NUTH CCU/EP on-calls and annual leave meant lab was underused at times

CONCLUSION

Complex devices are a valuable therapy for appropriately selected patients. A collaboration between two centres to use regional lab space to deliver complex devices was possible because of our local geography, compatible electronic resources and an arrangement that was mutually beneficial. The programme ended when COVID relief funds were no longer available, however, the process has demonstrated that utilising resources between different trusts is possible and can be beneficial for staff and patients.

The main challenge was the planning stage; however, identifying counterparts across sites and regular task and finish groups facilitated communication across centres leading to successful implementation of the project.

This process has improved NUTH EP waiting lists and upskilled a large DGH making care more equitable for patients across the North East. We hope that this experience will enable further collaboration between centres in the future.

At present STSFT is no longer able to deliver high voltage devices to its population however the EP MDT, device clinic and new consultant recruitment facilitated through this process will continue to support patient access to device therapy.

REFERENCES

1. NHS Standard Contract For Cardiology 2013/2014 Implantable Cardioverter Defibrillator (ICD) and Cardiac Resynchronisation Therapy (CRT); available at <https://www.england.nhs.uk/commissioning/spec-services/npc-crg/group-a/a05/>
2. British Cardiovascular Society 2020 The Future of Cardiology; available at www.britishcardiovascularsociety.org
3. Get It Right First Time National Report on Cardiology (2017) available at <https://www.gettingitrightfirsttime.co.uk/medical-specialties/cardiology/>

Acknowledgements

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