

CASE STUDY

Remanufacturing EP Catheters

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Case Setting

Electrophysiology is a cardiology speciality treating patients with arrhythmias. These patients are treated using single use catheters. We perform approximately 1.5k cases/year. The catheters are expensive and often contain precious metals such as platinum. After use, these devices are thrown away which creates a significant waste burden and are sent for incineration. A new device is then purchased ready to replenish supply made and delivered via a global supply chain.

Intervention

A remanufacturing programme diverts the used devices away from waste and extends their life cycle. The benefit of this is our waste is reduced plus the company we worked with (Vanguard) also pays us for the accepted collected devices, money that we can put into our savings or re-invest into new sustainability initiatives. We also use the remanufactured devices which are approx. 50% the cost of a new one and have a 50.4% reduction in greenhouse gases. Some devices can be safely re-used 4 times.

Measurement

Vanguard produces quarterly reports that detail the metrics we have delivered through our remanufacturing programme. In calendar 2022, through that 12-month period we achieved the following:

- Waste diversion: 120.09 kgs
- Income from collections: £14,006
- Estimated savings via re-use: £10,214
- Estimated reduction in CO₂ production: 556.80 kgs

The positive connotations of this programme go beyond these numbers. It has started conversations in the labs about what else can be done to reduce waste and greenhouse gas production. It has also shown that the environmentally better option is not necessarily more expensive, and conversations are happening about how the cost down of the procedure can translate into more cases being completed which benefits the wider population. It has also put positive pressure on the original manufacturers to do a better job themselves.

Challenges and Enablers

Getting the buy-in of busy clinicians. For 30 years clinical teams have been told that single use is the way forwards by IPC and companies producing the products. Original Equipment Manufacturers (OEMs) want and incentivise you to keep buying new single use devices.

Enablers are that 70+ hospitals now have a remanufacturing programme in the UK so growing clinical momentum. NHSE have produced a 'How to guide' and are fully supportive. Remanufactured devices are now available on NHSSC frameworks.

Reference

<https://www.vanguard.de/en/home/>