

## CASE STUDY

### Remanufacturing EP Catheters

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#### Case Setting

Electrophysiology is a speciality treating patients with cardiac arrhythmias. These patients are treated in our Cath Labs using single use EP catheters. We perform approximately 600 cases per annum. The catheters are expensive and often contain precious metals such as platinum. At the end of the case these devices are thrown away which creates a significant waste burden and are sent for incineration which has a large environmental impact too. A new device is then purchased ready to replenish this.

#### Intervention

We set up a remanufacturing programme that diverted the used devices away from waste instead sending them on to be remanufactured and reused. The benefit of this is our waste was reduced plus Vanguard, who we work with also pays us for the accepted 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.

#### Measurement

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

- Waste diversion: 67.81 Kgs
- Income from collections: £9,469
- Estimated savings via re-use: £16,560
- Estimated reduction in CO<sub>2</sub> production: 125.28 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 reduction in cost 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 environmentally themselves.

## **Challenges and Enablers**

### **Challenges:**

1. Changing mindset of clinical team, educating them on new strategies and reasoning
2. Original Equipment Manufacturers will want you to keep buying new single use devices.

### **Enablers:**

1. 70+ hospitals now have remanufacturing established in the UK so there is growing clinical momentum.
2. NHS England have produced a 'How to guide' and are fully supportive
3. Remanufactured devices are available on NHSSC frameworks