

CASE STUDY

Remanufacturing Electrosurgical Instruments

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Case Setting

Our theatres complete approx. 500 procedures using Direct Energy devices, usually during laparoscopic cases but also a handful of open procedures. Direct energy devices, in this case Harmonic Scalpels, are thrown away at the end of the case which adds to the waste burden. The devices are sent for incineration which has significant environmental impact and a new device is purchased ready to replenish supply made and distributed via a global supply chain.

Intervention

We set up a remanufacturing programme that diverted the used devices away from waste and instead sent on to be remanufactured and reused. The immediate benefit of this is our waste was reduced plus the company we worked with Vanguard also pay us a nominal amount for the accepted collected devices which we can put into our savings or re-invest in a new sustainability initiative. We also use the remanufactured devices which are approx. 50% the cost of a new one reduced greenhouses gases by 50.4%

Measurement

Vanguard produce 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: 69.72 kgs Income from collections: £2,149 Estimated savings via re-use: £11,040 Estimated reduction in CO₂ production: 41.76 kgs The positive connotations of this programme go beyond these numbers though, It has started conversations in theatre about what else can be done to reduce waste and greenhouse gas production. It has also shown that the environmentally better option isn't 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 environmentally themselves.

Challenges and Enablers

Challenges:

1. Getting the buy in from clinicians and changing mindset. For 30 years clinicians have been told that single use is the way forwards by IPC and companies.
2. Original Equipment Manufacturers are pushing to keep buying new single use devices.

Enablers:

1. 70+ hospitals now have a remanufacturing programme established in the UK s. NHS England have produced a “How to guide” and are fully supportive.
2. Remanufactured devices are available on NHSSC frameworks.