

Switching from single-use to reusables in a hospital theatre

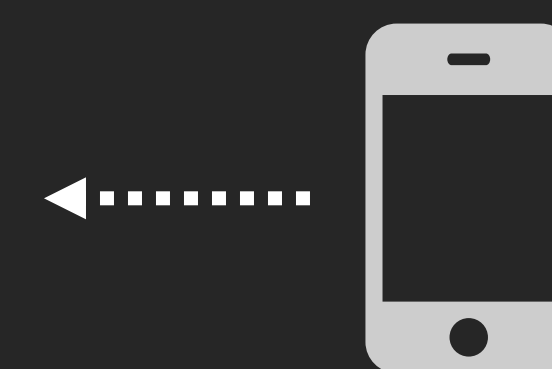
Background

- Since 2020, single-use products have been used the medical industry to prevent the spread of Covid-19.
- Bupa Cromwell Hospital in London were using single-use laryngoscope handles and drug trays.
- The handles which contained lithium batteries had to be incinerated, as per the manufacturer's instructions.

Life Cycle Assessments (LCA) to guide decision making

- The hospital would order 1,900 single-use laryngoscope handles and 9,000 single-use drug trays each year.
- An LCA found:
 - A single-use disposable metal handle generated approximately 25 times more greenhouse gas emissions (1.60 kg CO₂-eq) than a reusable handle treated with high-level disinfection (autoclave).
- Single-use trays:
 - cost twice as much
 - produce 15% more CO₂
 - consume 3 times the amount of water

By preventing the incineration of ~1,900 laryngoscope handles and >9,000 drugs trays each year, Cromwell Hospital will save >3,449 kg CO₂e (equivalent to powering 435 homes for an entire year) and £10,000 per year that can be reinvested into patient care.



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Cromwell Hospital

What we did:

- From February 2023, Cromwell Hospital now has 30 reusable handles, which cover 5 operating theatres and areas where anaesthetic services are required, including CT, MRI, endoscopy, and X-ray.
- The reusable handles are identical to their single-use counterparts, except that the rechargeable batteries require charging after 40 uses – these are checked before every procedure and can be recycled at end of use.
- They have also reduced their drug tray stock down to around 100 reusable items.
- An educational campaign was launched initially and a Standard Operating Procedure (SOP) has been put in place for the cleaning of the reusable handles and trays.

Lessons learnt:

- Staff responded positively to the reimplementation of reusables.
- Staff reported that the negative feedback around time required to charge the batteries and having to clean trays and handles was outweighed by the environmental and financial benefits.
- The biggest challenge was ensuring that staff didn't dispose of the reusables out of habit.
- Pictures were sent of the single use and reusable items to staff via WhatsApp and email, describing their differences.
- This initiative has inspired other similar initiatives; for example, the Green Team have also switched from plastic to reusable glass water bottles.



PRESENTERS:

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