

## A PLAN PUT FORWARD FOR A SAFER, MORE SUSTAINABLE OPTION

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## THE CHALLENGE

Liverpool Women's Hospital of one of only two specialist NHS Trusts in the UK that are dedicated to the healthcare of women, babies and their families. The Trust had been using a single-use system for the disposal of their sharps waste, and having to dispose of such containers saw the Trust incinerating 6.5 tonnes of plastic per year – a figure they wanted to considerably reduce in line with the 2008 climate change act.

One of Liverpool Women's biggest environmental objectives was to reduce their clinical waste and, consequently, their carbon emissions and promote sustainability within the Trust. Following the results of an independent audit which highlighted instances of non-compliance with waste guidelines, the Trust were concerned that they were incinerating significantly more waste than necessary and wanted to ensure they were fully compliant on all fronts. This also had financial consequences in that weighty containers were being incinerated.

Furthermore, the trust's environmental manager was under growing pressure to introduce an offensive waste stream to the trust in conjunction with existing guidelines. Sharpsmart confirmed that all healthcare waste generated within the hospital's clinical areas was being consigned as clinical waste and then incinerated. After conducting a comprehensive analysis of waste disposal processes within the Trust, it was estimated that Sharpsmart could divert 50% of this into a more compliant waste stream – without compromising quality or safety. A general lack of education around waste handling techniques meant that no substantial disposal methods had been implemented in order to ensure the Trust was following the waste hierarchy. Tim Neal, Consultant Microbiologists and Director of Infection Prevention and Control at Liverpool Women's Hospital, commented, "We were looking for a sustainable, patient-friendly solution that would enable us to manage our waste in a safe and sustainable manner, whilst fully considering the wellbeing and experiences of our patients and visitors."

## THE SOLUTIONS

### The Sharpsmart system

In order to directly address and overcome the issues they had faced with regards to CO2 emissions, compliance, sustainability, protection and education – and to minimise the costs associated with procuring and disposing of their sharps containers - the Trust worked with key stakeholders across the hospital (including infection control, Nursing Managers and Health & Safety) in order to implement the Sharpsmart reusable sharps system throughout the hospital. Peer-reviewed in four independent studies and relied upon by healthcare facilities across the world, the system has been proven to eliminate disposal-related sharps injuries and decrease CO2 emissions by 91%. The fact that the containers are pre-assembled greatly minimises preparation time for nursing staff.



Reusable sharps container range and Clinismart IN64.

## The Clinismart System

12 months after the installation of the Sharpsmart system, which saw savings of 10% on sharps management costs, compared with the trust's previous single-use system, the trust decided to introduce Sharpsmart's patented Bag-to-Bedside system; an innovative yet simple system that empowers healthcare facilities to safely and properly deal with waste that is generated at a patient's bedside, in a way that is compliant with waste regulations and CQC guidelines.

Comprising a range of bespoke components and blended learning tools, including bag dispensers, and waste bin labels, the solution is designed to safely contain and divert waste at the point of generation – helping to significantly reduce costs and minimise the risk of cross-contamination to the patient environment.

Changing the Trust's waste streams with the Bag-to-Bedside system also enabled Liverpool Women's Hospital to remove waste containers from bay areas where possible, helping them to provide a safer and more pleasant environment for staff, patients and visitors alike. Included in this was the introduction of an auditing system which allowed the Trust to see exactly what was being put into their waste disposal containers, helping them to understand the source of some of the issues they were experiencing, and therefore seek to appropriately educate staff on proper waste disposal and the enhancement of segregation.

## THE RESULTS

Since the Sharpsmart reusable sharps system was implemented within Liverpool Women's Hospital, the Trust have been able to prevent 10 tonnes of polypropylene plastic from being incinerated, reduce their CO2 emissions by approximately 56 tonnes and save 10% on their sharps management costs.

Furthermore, the inherent sustainability of the means the Sharpsmart will not have to manufacture any additional containers for the next 10 years, leading to an estimated 560 tonne reduction in CO2 emissions from the trust.

The introduction of the Clinismart Bag-to-Bedside system and its contribution to enabling the Trust to minimise the presence of waste containers in bay areas has seen 40% of waste diverted from clinical to offensive, infectious and alternative treatment streams – with cost savings of 45%. Its value as an educational tool has helped the Trust stay compliant with CQC guidelines and the 2012 Controlled Waste Regulations.

Regarding the success of the project, John Foley, Environment Manager at the Trust, commented, "By providing a significant reduction in carbon emissions and clinical waste volumes, the introduction of the Sharpsmart and Clinismart systems to the Trust has greatly assisted with our efforts to become more sustainable in line with the Climate Change Act.

Results were noticed almost immediately by both staff and patients, which has greatly enhanced the Trust and its prestigious reputation as a safe and environmentally-conscious healthcare provider. The ability to audit and see what is inside a container is a real eye-opener and extremely useful in educating staff."

Following the success of the initiative, John has introduced the Sharpsmart and Clinismart systems to another trust, where it is anticipated that similar savings and benefits will be achieved.

Sharpsmart and Liverpool Women's Hospital will continue to work together in a bid to further promote sustainable and safe practice throughout – and outside of – the hospital environment through ongoing improvement and KPI meetings, auditing processes, as well as the handling of all clinical and offensive waste.

**If you are interested in evaluating whether the Vacsmart system can optimise your environment, contact Sharpsmart on 01388 810310 or email [customerservice@sharpsmart.co.uk](mailto:customerservice@sharpsmart.co.uk)**

