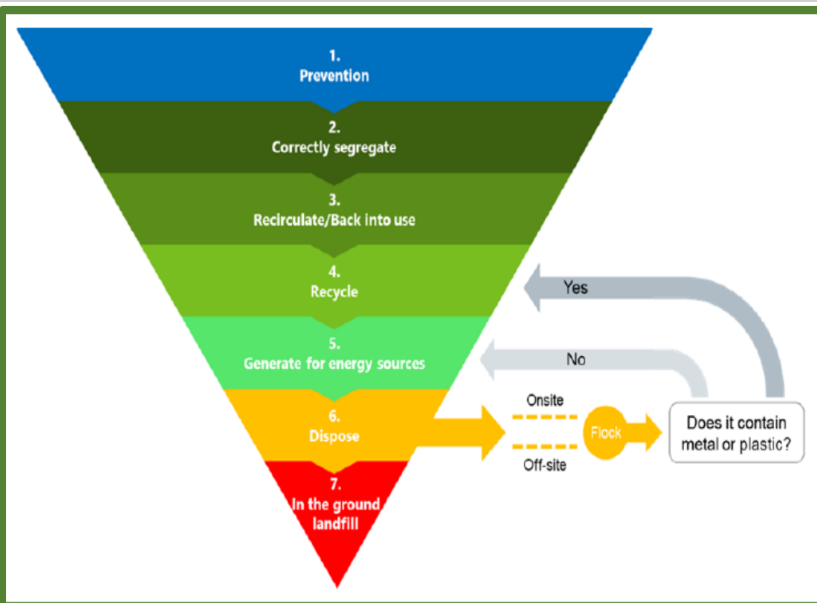


Working With Sharpsmart To Move Up The Waste Hierarchy

Date of Project: 2022

Background: Newcastle Hospitals was one of the first Trusts in Europe to introduce the Sharpsmart reusable sharps container system back in 2004. Sharpsmart has been the reusable container system we have continued with since that time and over the years we have developed our relationship with them. In 2020, as part of our Climate Emergency Strategy, Newcastle Hospitals started to outline their ambition to achieve Zero Waste by 2040 with interim goals on the way towards realising that target. At around that time Sharpsmart approached us to discuss their own ideas to develop their business offering to their customers and in so doing help us get closer to achieving our own goals.

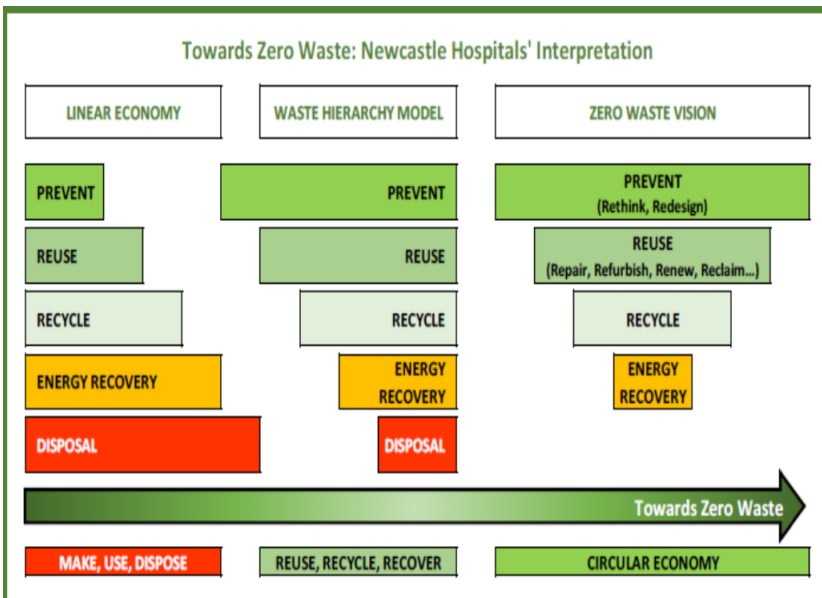
Context: Zero Waste does not mean that there will be no waste. Zero Waste in the context of our ambition means that, in line with the requirements of the Waste Hierarchy, we will focus on waste prevention measures and increase to 100% the amount of waste that is either reused, recycled or as a last resort sent to an energy from waste facility. No waste will be sent to landfill or incineration without energy recovery. The Trust has not consigned waste to landfill since 2011.



The Waste Hierarchy (adapted for clinical waste) is left. It is self-explanatory with the aim of encouraging most effort on waste prevention with the aim of reducing waste arising at each subsequent level of the Hierarchy.

Reducing waste is better for the environment in terms of carbon emissions and pollution prevention, but managing waste in line with the Waste Hierarchy also saves money.

The second model is the Trust's Zero Waste model which adapts the ambitions of the Waste Hierarchy and adds the additional factor of aiming to remove the requirement for consignment at the Disposal level of the Waste Hierarchy. For us that means Zero Waste to landfill (since 2011) but also Zero to Clinical Waste Incineration. It is this aspect that Sharpsmart have been able to direct solutions at and to help us move towards that goal. Over the page we will explain the impact that introducing Cartsmart and the MR64 accessories has had as well as Sharpsmart's Effluent Retention solution for sharps waste.



Shine Case Study

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Effluent Retention:

Sharpsmart has introduced a process for autoclaving sharps waste which captures the waste water from the steam cleaning process and keeps it away from the waste water system. This avoids medicinal residues from being flushed to sewer which is not permitted. The captured waste water becomes a by-product that can be sold whilst the treated sharps can be shredded and sent for energy from waste disposal i.e. to municipal incinerators.

This process has almost halved the volume of waste that was previously being sent to clinical waste incineration— i.e. incineration without energy recovery. As a result now less than 2% of Trust waste still requires High Temperature Incineration (HTI).

Sharpsmart Cartsmart System allows for bedside administration and disposal at point of use.



MR64 Single-use Metal Instrument Recycling:

The Trust has had a form of single-use metal instrument collection and recycling for a number of years. However volumes were low and the initiative was not well sign-posted. Together with Sharpsmart we designed a highly visual poster and led a series of presentations to mainly theatre staff aimed at increasing their understanding and increasing the collection of single-use metal instruments for recycling.

The Sharpsmart process itself is that the items go through a thorough decontamination process and are then processed for their valuable metals. The boxes are designed to include guide wires which can be a common problem for incinerators as they cause blockages.

Over 3 tonnes of material was recycled last year using this process representing 6% of waste consigned inside Sharpsmart containers.

Sharpsmart's Effluent Treatment Facility in Stoke



Cartsmart:

The widespread introduction of Cartsmart onto wards throughout 2022 had several benefits. The initiative was in part a Health and Safety measure as it allowed for the removal of sharps boxes from walls in bed bays and for the immediate point of use disposal of sharps at the bedside.

A concurrent benefit has been that it has encouraged wards to move away from the use of single-use sharps boxes at the bedside and towards this system. As a result consignments of single-use plastics to High Temperature Incineration have reduced. Taken together with the Effluent retention System above HTI has almost halved.

The MR64 Single-Use Metal Instrument Container

