

Reusable Sharps Containers at University Hospitals Coventry & Warwickshire NHS Trust

A sustainability assessment of the Sharpsmart reusable containers at University Hospitals Coventry & Warwickshire NHS Trust (UHCW). The analysis by Sustainability West Midlands (SWM) considered the environmental, economic and social implications of the reusable containers.

University Hospitals Coventry & Warwickshire NHS Trust & Sustainability West Midlands

Waste



What was the issue being addressed?

The Trust had previously used sharps containers that were disposed of after each use generating a lot of waste such as paper and plastic. The Trust sought an alternative that could be washed and reused, reducing waste and potentially saving money and carbon.

What action was taken to overcome the issue?

The Trust began using the reusable container that has a 10-year life span. It hoped this would mean fewer containers resulting in both cost and carbon savings. These claims are assessed in this study.

A study conducted in 2014 for the Trust by Sharpsmart and Waterman Environmental Ltd included a barrier constrained life cycle assessment (LCA) projection of the likely impact of introducing reusable containers in comparison with the disposable containers.

SWM reviewed this study, taking account of the 'Greenhouse Gas Accounting Sector Guidance for Pharmaceutical Products and Medical Devices' guidance produced by the SDU to assess the methodology for completeness and appropriateness, and ensure that the model uses the latest data in relation to related carbon emissions.

Sharpsmart updated all aspects of the model. This included considering the emissions from fuel, electricity, washing of bins, waste disposal (incineration), transport (via air, shipping, and road transport) and raw material production (main plastic component of the bins). The analysis was also updated to include the number of containers installed and used over the past 12 months at UHCW.

The containers have additional safety features that may also result in fewer injuries. SWM visited UHCW used data from the Occupational Health Team on the number of sharps injuries and interviewed individuals involved in the use of the reusable sharps containers to assess this.

What was the impact?

The life cycle assessment (LCA) projected over a ten-year period the containers will reduce CO₂e by 2,053 tonnes equating to a 92% reduction when compared to single use bins.

There has been an economic saving of around £20,000 per annum as a result of introducing the containers.

Before the introduction of the new bins there were an average of 3.2 injuries per quarter associated with disposal of sharps into the sharps containers. After introduction, this figure had dropped to an average of 1 per quarter.

Contact: Anna Bright
Sustainability West Midlands
E-mail: enquiries@swm.org.uk

Lessons learned / success factors?

This study was successful due to the cooperation of all partners including who were transparent with the sharing of information and modelling, and staff at the Trust who shared both experiences and data.

The results for University Hospitals Coventry & Warwickshire NHS Trust are unique to their circumstances. Other trusts considering the use of reusable sharps containers should consider aspects such as proximity to waste treatment facilities, opportunities to minimise waste, and limitations to the roll-out of new bins when analysing their options.

Scaling up

In order to identify the potential for environmental, economic and social benefits across the NHS more widely, data on total sharps container usage is required.

