



CASE STUDY

University Hospital Galway

Healthcare Risk Waste Reduction Programme



University Hospital Galway (UHG) is a large acute hospital providing a comprehensive range of services to emergency and elective patients on an inpatient, outpatient and day care basis. The hospital has 558 inpatient and 106 day case beds. UHG is part of Galway University Hospitals.

The hospital joined the Green Healthcare Programme (GHCP) in 2010. The GHCP undertook detailed survey work in the hospital, which generated a number of waste reduction recommendations. A food waste survey was repeated in 2013 to identify savings achieved.

This case study outlines the waste reduction measures implemented by University Hospital Galway and the associated savings achieved.

Healthcare Risk Waste



Comparing the first 7 months of 2013 with the same period in 2012: **16 Tonnes Decrease**

27 TONNES (8%) DECREASE PER ANNUM



UHG has implemented a number of measures to reduce the quantity of HCRW generated onsite, with the main measures including:

- Change to the segregation of waste in source isolated rooms
- Active implementation of change in segregation policy and training of staff at ward level
- Introduction of the 'Bio Systems' waste management system throughout the hospital

Change to the segregation of waste in source isolated rooms:

Up to March 2012, as in the majority of hospitals in Ireland, all waste generated in rooms used for the source isolation of patients was treated as Healthcare Risk Waste (HCRW). HCRW or waste contaminated with blood or bodily fluids will be generated through the treatment of these isolated patients. A significant majority of the waste generated in these rooms is in the form of non-contaminated domestic type waste (e.g. newspapers, papers, plastic, paper towels, etc.), which can be considered as non-risk waste¹.

The hospital's Environmental & Waste Management Co-ordinator recognised that this domestic waste may be unnecessarily disposed of as HCRW, at a significant cost to the hospital.

A project team comprising of the Environmental & Waste Management Co-ordinator and the hospital's Infection Control department was set up. A new waste classification system, which had been implemented in another acute hospital, was considered.

The HCRW bin is removed from the isolation room and only a landfill bin provided. All materials contaminated with blood or bodily fluid, and other materials automatically disposed of as HCRW, is placed into a small yellow bag with the staff member's gloves and other personal protective equipment (PPE). The bag is then sealed and removed from the room to the Dirty Utility Room. All other domestic waste is disposed of in clear bags in the landfill bin, which are closed within the rooms and conveyed to the waste holding area.

The system was trialled in one area and found to operate successfully with no associated negative impacts. In May 2013 the system was rolled out across the hospital.

Note: Where the patient is isolated for a more serious contagious condition, or in the event of an outbreak (e.g. norovirus), all waste is treated as HCRW and the original system reverted to. The landfill bin is replaced with a HCRW bin or the landfill bin is lined with a HCRW bag.

¹ As referenced in the guidelines for the control and prevention of a number of infectious diseases issued by Health Protection Surveillance (HPSC), <http://www.hpsc.ie/hpsc/Publications>

Active implementation of change in segregation policy and training of staff at ward level:

The project team realised that in order for this system to be implemented successfully, it was essential that staff were trained on and fully aware of the new system. Communication was sent to all staff to inform them of the change to the system. The project team actively trained staff at a ward level and targeted ward staff, healthcare staff and cleaning staff. This ward level training was undertaken over a two-month period.

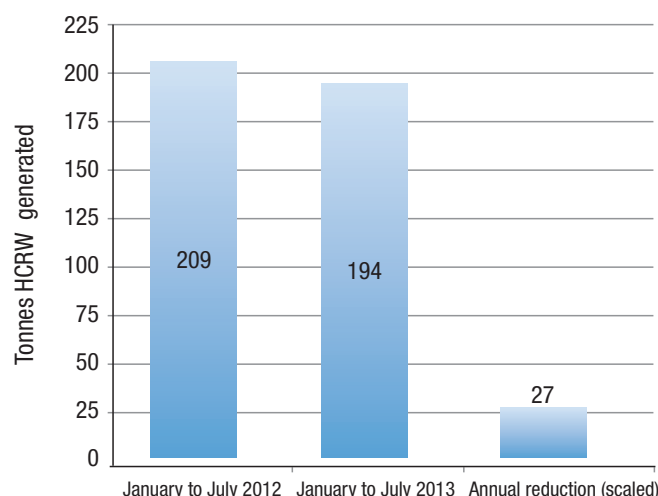
Introduction of the 'Bio Systems' waste management system:

The 'Bio Systems' waste management service incorporates the use of reusable containers for the collection of sharps and liquid HCRW. The full containers are removed to a waste treatment facility, sterilised and returned to the facility for re-use. This reduces the quantity of disposable sharps containers being purchased and disposed of as waste. In addition to the waste reduction aspect, staff outlined a preference for the system, for the reduction in the potential for needle stick injury that the system offers.

Other advantages of new system:

- Healthcare risk waste is only stored in one area of the ward. This reduces the potential for mismanagement in multiple areas.
- Rather than having waste present in smaller volumes in waste bags in multiple areas, the sole healthcare risk waste bag is filled at a faster pace and more frequently removed to the waste storage area. This reduces the time that waste is sitting in an area, including reducing the potential for offensive smell.

Tonnes sterilisation HCRW generated - 7 months



Healthcare Risk Waste

Comparing the level of HCRW generated in the first **7 months** of 2013 with that generated in 2012, the hospital generated **16 tonnes of HCRW. Scaled for a year that is 27 less tonnes of HCRW generated, a significant reduction of 8%.**

These waste reduction measures have resulted in notable cost savings for the hospital. The hospital continues to work on measures to reduce the quantity of waste it produces even further.

