



# CASE STUDY Cork University Hospital

Maximising recycling and minimising healthcare risk waste in the theatre



Cork University Hospital (CUH) is one of the largest acute teaching hospitals in the country with 850 beds.

The hospital provides a wide range of services including emergency medicine, general medicine and surgery, oncology and radiotherapy services. CUH has 9 operating theatres with typically 60 to 80 procedures per week. CUH was one of the original participants in the Green Healthcare Programme (GHCP), with survey work undertaken in 2009 and 2010.

This case study outlines the key steps taken by the hospital to implement a successful waste minimisation and segregation programme in their theatre department, including:

- Commitment from management to the implementation of the programme
- Training and commitment of staff
- Clear identification of what can be placed in recycling bins
- Positioning of all waste bins
- Highlighting cost savings

## Setting up the waste segregation programme - commitment needed!

As with any successful initiative, the theatre's waste segregation programme was started by an environmental champion from within the department. A consultant anaesthetist observed that large quantities of recyclable material were being incorrectly disposed of in the landfill and healthcare risk waste bags. Aware of the beneficial environmental effect of recycling, and the large cost difference between the disposal of healthcare risk waste and landfill/recycling waste, a simple question was asked - could recycling bags be used in the theatre?

Management provided commitment to the programme and with the assistance of the hospital's waste office, clinical nurse manager and other interested staff, a trial of the recycling programme was undertaken in Theatre 9 in 2008.

The trial found that the level of landfill and healthcare risk waste waste greatly reduced. At all times the correct segregation of healthcare risk waste was maintained. Following the success of the trial, the programme was reviewed to incorporate improvements observed, and rolled out across the other 8 theatres in the department.



## Influence of the theatre recycling programme on the rest of the hospital

The introduction of recycling bags in the theatre greatly increased the volume of recycling in the hospital.

As a result, the mixed dry compactor in use by the hospital had to be collected much more frequently.

## Key points for implementing a successful waste segregation programme

### Make it clear what can be placed in the recycling bin:

Consult with your waste contractor and suppliers, to determine what materials will be accepted in the recycling bags.

Before the initial trial CUH's waste officer provided examples of all waste packaging to the waste contractor. All clean packaging, sterilised equipment wrapping, and office paper is accepted in the recycling bags in CUH.

Compile a clear list of the materials that are acceptable and supply to staff before the start of the programme, as in the CUH trial. Outline that all other material should be placed in the general landfill waste bag and if healthcare risk waste, in the healthcare risk waste (HCRW) bin.

At the start of the programme instructional signage may need to be placed on or above bins to assist staff. As staff become used to the recycling system and what is acceptable in the bins, the signage can be removed, in line with infection control best practice.

### Review the number and type of general landfill and HCRW bins provided:

Ensure that all the healthcare risk waste and general landfill waste bins are actually needed. Where surplus to requirements, remove the waste bin to prevent the placement of waste in the wrong bin e.g. recyclables in the HCRW bin.

### Ensure waste bins are placed in the right location:

Ensure the recycling bins are provided in areas where large volumes of packaging are generated. Always place the HCRW bin near another type of bin; staff have to think about where to place the waste, and are more likely to place the waste in the correct bin.

### Use colour coded bins:

Where possible use different coloured bins or bags for each type of waste, allowing staff to easily identify the correct bin to use.

### Staff - essential part of the programme

Ensure that all staff are aware of the waste segregation system. Generally, nursing, portering staff and anaesthetists, manage the majority of waste from the theatre, so focus training on these staff.

### Highlight cost savings to staff:

CUH noted that a real motivator for the programme was highlighting to staff the huge cost difference between the disposal of waste as healthcare risk waste and by landfill/recycling.

### Ensure the system will be suitable before investing in equipment:

The surgical department requires the use of silent close bins. During the trial existing bins with clear signage were used as recycling bins. The hospital didn't invest in new equipment before knowing if the recycling system would work.

## Results of the programme and comparison with the average acute facility

### Information gathered through waste surveys carried out under the Green Healthcare programme

The work undertaken by CUH theatre staff results in a significant quantity of recyclables being segregated. A survey by GHCP showed that 40% of the total waste generated in the CUH theatre department (general, healthcare risk waste and recycling) is being segregated for recycling. This is compared to an average value of 11% in theatres in other GHCP acute facilities.

If CUH's recycling level was as low as the average value, their waste disposal costs for the theatre would increase by a minimum of €5,000 per annum.

