

Back in 2003, Queen's Medical Centre's then operational estates director, Robert Cartwright, seeking to bring down waste costs and combat a problem with needle-stick injuries amongst auxiliary workers, commissioned a healthcare waste audit undertaken by independent consultant, Well Solutions.

While identifying potential savings the audit also highlighted a number of other benefits that could be made by the introduction of waste management/segregation systems:

- Compliance with healthcare standards
- Compliance with Duty of Care obligations
- Reduction in current and future costs of clinical waste disposal
- Set in place an infrastructure to support future waste management initiatives
- Training/education of staff in waste management
- A cleaner patient environment



Enthusiasts: (l to r) QMC's waste supervisor Paul Sharp and energy and environmental manager John Broughton

Perhaps the audit's most dramatic finding was that over 55% of clinical waste was actually domestic waste, that could be sent for landfill.

Risk assessments showed it was possible to safely segregate approximately 35% of domestic waste out of the clinical waste stream - taking into account the cost of domestic waste disposal, this equated to a saving in the region of £75,000 a year.

The audit also highlighted a limited knowledge of waste management legislation and best practice amongst staff, leaving the trust exposed. Evaluating the time and resources available, the hospital recognised it would not be able to give the project the necessary emphasis to successfully introduce the scheme itself and commissioned Well Solutions to manage and direct the project through its first year. This enabled the hospital to have passed over to it a working waste segregation policy that it could manage with



SPEND TO SAVE

Waste segregation at Queen's Medical Centre saves over £250,000

With other hospitals keen to hear of its success, Hospital Bulletin spoke to QMC's energy and environmental manager, John Broughton, and waste supervisor, Paul Sharp

limited involvement from Well Solutions.

An infrastructure was set up to support the introduction of the waste segregation policy, giving clear lines of accountability and responsibility and opening up an effective communication system throughout the hospital across all departments and all levels of management to ensure the smooth introduction of the waste management systems.

Other key areas addressed included:

- Managing the cultural change at the hospital
- Communication and reporting systems
- Setting up and monitoring of KPIs
- Introduction of and setting up of internal/external auditing systems
- Training/education of staff
- Appropriate new colour coded

waste bins/silent close/hands free

- Revision of waste management policy/procedures
- Duty of Care audit on waste disposer
- Recognition of good practice
- Improving the patient environment
- Minimise risk of infection and injury

As QMC's waste supervisor, Paul Sharp explains: "The trust was already working with a waste bin supplier but, considering the number of new bins and sackholders required, cost became a major factor. We found that the range offered by Environmental Hygiene Products met all the requirements at about half the cost."

One of only two approved suppliers to the NHS, Environmental Hygiene

Products has to date supplied 1,565 bins over three phases, enabling the entire hospital to be re-equipped in a coordinated and consistent manner.

The trust chose a combination of solid and removable body bins for the hospital, all of which are designed for hands free operation,

reducing the chance of spreading infections. The removable body bins also aid the cleaning process. All the bins are made of galvanised steel, which means they meet all fire safety regulations which rule out the use of plastic bins in hospital wards.

The trust now boasts a reduction of over 35% in clinical waste, an annual saving of around £75,000 a year taking into account the cost of domestic waste landfill. There is also a reduced environmental impact since incineration/treatment disposal and transport are lessened, plus a cleaner patient environment since procedural changes were made to the way clinical waste was disposed of on wards and stored in patient areas.

A reduction in the number of waste related injuries followed with implied benefits to litigation cost reduction, less staff sickness, and stress related conditions. While the increase in domestic waste output goes against European Directives, particularly the landfill directive that sets clear targets for reducing the amount of waste sent for landfill, plans are in place to reduce this by the introduction of various recycling initiatives.

"The project proved to be self-financing well within its first year," says QMC's energy



Trouble-free: simple to empty, the whole body of the waste bin can be easily removed for cleaning

and environmental manager, John Broughton. "Staff really took hold of it - they're empowered and very supportive of improving waste recycling. The hospital is building on its success, by continuing to introduce more effective recycling/reuse initiatives on the back of the waste segregation policy."

"We're now looking to remove clinical waste bins from our six-bedded wards. This will improve the patient experience and reduce the risk of the public putting incorrect waste into the bins."

Paul Sharp adds: "We're also considering using clear bags instead of black. Being visually able to see what's in the bag will deter people from putting the wrong thing in. It also gives the porters confidence about what's in the bag."

"Well Solutions does a spot check as part of its audit process, while I carry out regular inspections of bag contents and all bags are labelled to identify the source of the contents."

The hospital plans to take clinical waste out of the wards and to further segregate the domestic waste at ward level



Segregation: clinical waste and domestic waste bins are sited throughout the hospital

into newspapers and magazines, and domestic waste.

"There's possibly a further £50,000 that can be saved through further segregation," says John Broughton, who reports to the hospital board each month on waste streams, total tonnage disposed of and the savings.

"We've had a lot of visits from other trusts keep to learn of our experience. Once embedded the scheme runs itself, the only problem area is with new staff who are going

through their training."

John adds: "Being a teaching hospital we talk to the nursing staff and they take the benefits along to any hospital they go to."

The hospital's confidential waste is loaded through a thin slot opening into lockable bins and collected for double shredding offsite.

On a typical ward, sister Sharon Lane, a member of the trust's environmental strategy group, reports: "Staff are interested in the waste segregation

system and keen to do their bit to reduce costs and help the environment. The system's clear, simple and has reduced the number of clinical waste bags we go through as the correct material is now being put into them."

The cost benefit of the simple but effective waste segregation strategy is not lost on finance professionals. For example, Gary Campbell, Environmental Hygiene Products' finance director, a chartered accountant who used to audit NHS trusts,

says: "We know from Nottingham and elsewhere that straightforward waste segregation can reduce disposal costs significantly. When clinical waste costs up to six times as much as domestic rubbish to dispose of, just by ensuring waste goes into the correct bin can save tens of thousands from the budget each year."

"This simple system means that in many cases a complete re-equipping using our bin system can pay for itself within one year."

Queen's Medical Centre merged with another hospital last year to form Nottingham University Hospitals NHS Trust.

The successful waste segregation policy will be extended and plans are in place to test a total waste management concept.



Teamwork: sister Sharon Lane is a member of the trust's environmental strategy group

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