



## Case study

### Waste

### The Queen Victoria NHS Foundation Trust Hospital

#### Background

Segregating medical and domestic waste correctly is cutting Queen Victoria hospital's bills and reducing carbon too.

Based in East Grinstead (West Sussex) the Queen Victoria NHS Foundation Trust is a specialist reconstructive surgery centre for the south east of England. The 130 bed hospital was founded in 1863 and has become world famous for its pioneering burns and plastic surgery unit.

#### Carbon and Financial Savings

In October 2009 the Queen Victoria completed an audit on how to segregate clinical and domestic waste correctly. Improper disposal of clinical waste in domestic bins (and vice versa) can result in major fines of up to £50,000. There is also a major difference in disposal costs so bagging up the waste accurately can save a lot of money, especially as the hospital produces 252 tonnes of waste per year.

Correctly segregating the waste is expected to save the hospital up to £30,000 and 40 tonnes of CO<sub>2</sub> per year.



Queen Victoria NHS Foundation Trust

The Queen Victoria used to produce around 130 tonnes of CO<sub>2</sub> a year because of clinical waste disposal and costs the Trust nearly £90,000 a year. Of this waste the Audit Office predicts that 50% of all clinical waste is actually domestic waste which has been disposed of incorrectly.

#### How did the Queen Victoria improve Sustainability?

The Queen Victoria decided to be more sustainable with its waste management systems after there was an interest in bringing recycling to the hospital.

"Clinical waste is incinerated, producing an immediate release of CO<sub>2</sub>. To bring this to people's minds, the amount of CO<sub>2</sub> produced was equated to the CO<sub>2</sub> production of driving an everyday car - a Ford Fiesta. This showed that a full bag of clinical waste produced the same CO<sub>2</sub> from incineration as does a Ford Fiesta driving nearly 50 miles, and that as a Trust we produced enough from clinical waste to drive this car 80 times around the world. Put in these terms it made it easier for the staff to realise the environmental impact of not segregating properly."

Dr Tim Vorster,  
Consultant in Burns ITU and Anaesthetics and project coordinator  
Queen Victoria NHS Foundation Trust

The audit highlighted that domestic waste bins should be placed in operating theatres, where most waste is produced. In addition, steps were taken to correctly dispose of the high levels of packaging from deliveries coming into the hospital.

The maths in the end was simple. Disposing of a yellow bag of clinical waste cost £6.40 while domestic waste cost the Trust £1.90, a saving of £4.50 per bag.

And segregating waste accurately isn't just good for hospital finances, it's also good for the environment because:

- Clinical waste is incinerated.
- Incineration releases climate harming greenhouse gases into the air.
- It's estimated that 1% of Europe's toxic emissions, such as sulphur dioxide, are due to the disposal of such matter.

## Lessons Learnt

Dr Tim Vorster, the project coordinator, has listed a number of things he would do differently next time:

- Make the scheme part of the staff induction package
- More advertising of the problem, results and savings
- Have a recycling scheme ready to go straight away
- Appoint a sustainability lead to push the agenda at management level and to ensure proper segregation of waste and to look for new ways of saving money and improving sustainability
- Make it available to all Trusts via e-learning package

## Any difficulties?

One of the main reasons waste was not being segregated properly was down to confusion over the classification of clinical waste. Clinical waste is broadly categorised as the waste from patient treatment. A marketing campaign helped staff understand how to dispose of waste correctly.

## Success factors

It was important for Dr Tim Vorster to complete the audit to ensure waste awareness and to make the relevant changes to the hospital.

In the first 6 months of the new waste scheme being brought in, the hospital saw a reduction in clinical waste of between 10 and 15% compared to the previous whole year figures.

The hospital is intending to improve sustainability even further with more recycling facilities. The Queen Victoria is going through a 'total waste solutions' tendering process so it can manage mixed recycling of plastics, paper and metals.

## Further Information

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The NHS Sustainable Development Unit develops organisations, people, tools, policy, and research to help the NHS in England fulfil its potential as a leading sustainable and low carbon organisation.