Overview of the Project

An acute hospital will always produce clinical waste which needs to be disposed of safely to avoid spreading infection or causing injury to others. Options to reduce the amount of clinical waste are limited as safety will always be the over-riding factor. Improvements in waste segregation within acute hospital trusts often focus on the introduction of recycling to reduce general waste or diverting non-infected clinical waste into the 18.01.04 ‘offensive waste’ stream.

Some trusts are just implementing these changes, while at Yeovil this was completed 6 years ago. Reducing other types of clinical waste is often seen as too difficult due to the need to package the waste safely and securely. At Yeovil we wanted to reduce unnecessary waste in this area and set about challenging existing ideas held by clinical staff. Re-usable sharps bins were introduced to remove the amount of plastic sent for incineration.

Plastic ‘burn boxes’ were then removed, some by the introduction of cardboard boxes, and others by the introduction of pre-gelled suction liners. This had the additional benefit of removing suction liners from the incineration stream and are now treated and processed into RDF. These schemes have reduced waste sent for incineration, which is the most unsustainable form of clinical waste disposal, by 50%.

Economic, Health and Carbon Impact of the Project

The aim was to reduce the amount of waste sent for incineration to 10% of our total clinical waste which was achieved in May 16. The initial trial of SharpSmart re-usable sharps bins in 3 areas of the Trust showed a reduction from 22% to 15%. However, the complete roll out of re-usable sharps-bins, replacement of plastic ‘burn-bins’ and the removal of suction jars from the incineration waste stream has allowed us to achieve our target.

Despite the number of patients the hospital treats increasing, the level of clinical waste produced has remained the same and our costs have reduced by around £500 per month. Other than waste which must be incinerated, all other clinical waste is now treated and processed into RDF, allowing for a further use of the waste before ultimate disposal.
A total of 12 tonnes of packaging has been removed from the clinical waste stream, comprising of 16,000 sharps bins and 1,170 'burn-bins'. A further 3 tonnes of waste has been diverted from the incineration stream to the alternative treatment stream, and is therefore processed in to RDF.

**Partners, supporters involved in the Project**

We have worked with our partners SharpSmart to introduce the re-usable sharps bins. The SharpSmart system is independent of clinical waste contracts. This enabled us to continue using our contracted clinical waste supplier (Tradebe) who provide us with coloured lidded waste carts helping to improve our segregation.

We are working closely with SharpSmart for our future plans and are currently the only NHS Hospital in the UK using the VacSmart system to reduce the volume of waste produced on wards, reducing Portering time and transport mileage.

**Future plans for the project**

Further work is now being completed to reduce clinical waste by removing PVC from this waste stream for recycling. We are also planning our next project to reduce the impact of our clinical waste further.

We plan to reduce the volume of soft clinical and offensive waste by vacuum packing the waste to reduce our waste collections from 6 per week to 1 per week. This will remove 550 transport miles per week. Two areas are already using this system which also has the benefits of reducing waste storage requirements in the ward and sealing in infection and offensive smells.

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