



Green Nephrology

REDUCE, RE-USE, RECYCLE IN THE DIALYSIS UNIT

<http://www.greenerhealthcare.org/nephrology-resources/reduce-reuse-recycle>

THE USE OF BALING MACHINES TO COMPACT WASTE FROM DIALYSIS UNITS

BIRMINGHAM HEARTLANDS HOSPITAL

The introduction of a baler into these dialysis units has led to the redirection of considerable volumes of plastic and cardboard waste into more environmentally friendly waste disposal streams. Significant financial savings have resulted from the reduction of plastic entering the clinical waste stream, and the compaction of the cardboard has reduced the waste storage space required and the fire risk.



Point in Time	Total investment	Total savings made to date	Return on investment
End of year 1	£4,082 ¹	£4,250 ²	102% ³
End of year 2	£4,678 ¹	£8,250 ²	175% ³
End of year 3	£5,263 ¹	£12,400 ²	236% ³
End of year 4	£5,848 ¹	£16,550 ²	283% ³
End of year 5	£6,433 ¹	£20,700 ²	322% ³

Contact - Paul Williams
Facilities Health & Safety Officer,
Heartlands Hospital, Birmingham.
Paul.williams@heartofengland.nhs.uk

- In the 12 months from April 2005, the NHS generated over 400 thousand tonnes of waste of which 29% was clinical waste
- This is equivalent to over 5kg of waste per patient per day
- The disposal of this waste costs the NHS around £73 million pounds a year
- A single haemodialysis session produces about 2.5 kg of solid clinical waste of which 38% is plastic
- This amounts to an estimated 390 kg per year per haemodialysis patient
- A patient undertaking a standard peritoneal dialysis regime produces even more - about 617 kg per year



OPPORTUNITIES TO REDUCE WASTE WHEN SWITCHING TO HAEMODIAFILTRATION

QUEEN MARGARET HOSPITAL DUNFERMLINE

- The use of saline and giving sets was reduced by stopping the unnecessary practice of hanging a bag for emergencies in favour of using the online facilities for emergencies and re-infusion.
- The bicarbonate bag was diverted away from the clinical waste stream to domestic waste.

These two initiatives reduced the clinical waste from a single treatment by 2 kg

Over the annual 10,764 treatments provided by the unit using Fresenius 5008 machines, this would result in a reduction in clinical waste of 21,528 kg – or 21.5 tonnes. As a large producer of clinical waste, the Queen Mary Hospital was charged at £300 per tonne of clinical waste, leading to an annual saving of £6458.40. This saving was offset by the increased cost of the domestic waste (£85 per tonne) attributable to the addition of the bicarbonate bag to this waste stream.

The annual 10,764 treatments produce 10,764 bicarbonate bags, with a total weight of 10,764 tonnes and a disposal cost of £914.90, **resulting in an overall annual saving of £5543.10.**

Contact - Mary Thomson
Dialysis Staff Nurse, Queen Margaret Hospital,
Dunfermline
maryathome@aol.com

SECOND LIVES FOR DIALYSIS PACKAGING & EQUIPMENT



Patients have been finding innovative ways to re-use the packaging of their equipment for many years.

The reuse of many items found within renal units becomes possible with only a little re-organisation. For example, plastic sharps carriers for cannulation can be washed and re-used and should be chosen in preference to paper trays, whilst plastic sharps containers can be washed and reused if they can be safely emptied into a central collection point. Many suppliers are able to collect and directly re-use the pallets and cardboard boxes used in the delivery of dialysis supplies.

Contact - Andy Connor Green Nephrology Fellow,
The Campaign for Greener Healthcare
andrew.connor@kintoa.org