



Reducing waste through the power of procurement and innovative thinking

Procurement accounts for almost 60% of the NHS's overall carbon footprint. The majority is generated by the production, transportation and disposal of pharmaceutical and medical devices / instruments.

What the NHS uses and how waste is disposed clearly has a huge impact on carbon emissions, and as identified in the RCP's report [Less waste, more health](#) there are a number of ways in which trusts and individual clinicians can take action.

Reducing waste

- All staff must place products nearing expiration in the most accessible position when replenishing stock.
- Healthcare staff and procurement teams need to work together to minimise over-purchasing and unnecessary expiration of unused equipment, prioritising waste prevention.
- The NHS must leverage its purchasing power and high reputation to mandate all suppliers to disclose and improve their approach to sustainable development and carbon management.
- Every patient contact should be taken as an opportunity to check medication compliance, to minimise the need to dispose of unused medication.
- Local healthcare communities should work together to educate patients about appropriate antibiotic use and medication disposal.

Case study – medicinal waste disposal

Newcastle Upon Tyne (NUTH) introduced paper-based Bio-bins® for the disposal of medicinal waste, instead of plastic purple topped rigid yellow containers.

The traditional rigid plastic containers are heavy, and it is estimated that the disposal of the containers alone accounts for 30–40% of the trust's incineration bill. The Bio-bins® offered a cheaper and more environmentally friendly alternative allowing for more to be delivered at any one time.

The Bio-bins® were placed in high usage areas to test performance before it was rolled out across the trust. NUTH's trials demonstrated financial savings through reduced price per unit and a significant saving from a reduction in waste being incinerated (30 tonne annual reduction in waste equating to £13,500).



Per annum savings	£13,500**	66 tonnes CO ₂ e
Equivalents	Part time band 5/6 nurse salary*	Driving 161,756 miles

Reusing waste

- When choosing a product for use in a healthcare setting, whole life cycle costs and environmental impacts should be taken into account during the decision-making process.
- Environmentally friendly product alternatives that don't compromise patient care or staff safety should be favoured.
- Facilities that allow the public to return medical equipment that is no longer required should be developed and promoted

Case study – health equipment amnesty

NHS West Suffolk launched a campaign encouraging local inhabitants to hand back NHS equipment no longer required. In one month over 8,500 items were returned, including crutches (£12.70 per pair), commodes, adjustable wheeled frames and air mattresses (£1,650 per mattress). Crutches, walking sticks and frames are listed in the Sustainable Development Unit's top 20 priority items. These items are thought to account for more than 70% of the footprint of procured items, in terms of expenditures and carbon footprint.

Recycling waste

- All NHS wards / departments / trusts should aim to maximise the reuse and recycling of resources as a default option, diverting waste from landfill or incineration where possible
- Trusts should educate staff about appropriate waste segregation and minimisation, and display aide memoires to reinforce messaging
- NHS organisations should support their staff by promoting increased awareness, conducting behavioural change programmes, low carbon travel and supporting the use of ICT



Case study – improving waste segregation

A Welsh trust reviewed their waste segregation practices and determined that only one-third of waste disposed of clinical waste was truly clinical waste.

Clinical waste trolleys were introduced to replace clinical waste bins on wards. The trolleys are used when carrying out near-patient clinical procedures only, and then removed from the ward once the procedure was complete. This prevented the use of the clinical waste bins for domestic waste disposal.

The trial suggested there was potential to divert 15 tonnes of non-clinical waste to the domestic waste stream, resulting in significant financial savings. Introduction of an offensive waste stream in key areas with high incontinency wastes is predicted to save up to £85,000 per annum.

Queen Victoria NHS trust (East Grinstead) expected to save £30,000 and 40 tonnes of CO₂ per year by correctly segregating waste. This would reduce the hospital annual clinical waste disposal costs by a third (annual expenditure of £90,000) and associated carbon emission by 25%.