

NHS could save £1bn by adopting green strategies used in kidney units

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The NHS could save hundreds of millions of pounds a year if “successes” in sustainable kidney care shown in new research were spread across other specialties, an expert has said.

Donal O’Donoghue, England’s national clinical director for kidney care, said that the analysis of work by renal clinicians had shown “what our NHS can do” to save money and to benefit the environment.

The independent Centre for Sustainable Healthcare has calculated the potential benefits in cash savings, carbon emissions, and water usage of 20 “green nephrology” initiatives.¹ It estimated that there would be annual savings to the UK health services of £7m (€8.2m; \$11m), 11 000 tonnes of greenhouse gases (carbon dioxide equivalent), and 470 million litres of water if these 20 practices and ways of managing resources were successfully replicated in kidney units across the United Kingdom.

Frances Mortimer, the centre’s medical director and a coauthor of the study, said, “Sustainability has become part of the national discourse in kidney care, and we can now see from many successful projects that there is huge scope to save money across the health service, reduce greenhouse gas emissions, and maintain or improve good quality care.”

O’Donoghue praised the work, saying, “Dialysis represents less than 1% of NHS activity, so it’s not unreasonable to expect approaching £1bn per year saving if the enthusiasm and focused work of the kidney community spread across the whole NHS.”

The analysis comes ahead of a consultation by the NHS on a new sustainable development strategy for health, public health, and social care for 2014 to 2020.

Kidney care is acknowledged to be among the most resource intensive of clinical specialties. Haemodialysis uses a significant amount of electricity and water per patient session, as well as single use equipment that carries a carbon cost from manufacture and disposal.

The 20 case studies reflect three broad types of initiative linked to a green nephrology programme set up in 2009.

So called “infrastructure projects” included water reuse, installing baling machines for plastic and cardboard recycling,

and central delivery of acid for haemodialysis. Six of these projects ran up capital investment costs of £121 000 but generated annual savings of £57 000, 84 tonnes of greenhouse gases, and 12 million litres of water, the study showed.

A further 11 “process” innovations ranged from paperless laboratory reporting to waste reductions in food, linen, and dialysis consumables to improved waste segregation. These initiatives yielded annual savings of £186 000 and 183 tonnes of greenhouse gases, said the centre.

Three “model of care” innovations demonstrated the “improved use” of telecommunications in managing patients with chronic renal disease. Mortimer said that quantifying the financial savings in this category was more complex than in the other two, but she estimated that the three projects had saved six tonnes of greenhouse gas emissions in their pilot phase.

She said that “conservative” estimates of total potential savings across the UK were based on infrastructure projects being adopted by 30% of the UK’s 269 renal units and process innovations by 60% of units. Model of care estimates were not included in the total savings projections.

She said that support from senior management within units and access to funding for investment were “enabling factors” that could help to spread such successes further.

Chris Stait, a kidney patient involved in the green nephrology programme, said that the NHS could be doing more to act sustainably and that campaigners should keep up pressure on purchasing chains to ensure that they “buy in a low carbon manner” and urge manufacturers to improve equipment design.

bmj.com Feature: The greening of medicine (*BMJ* 2012;344:d8360, doi:10.1136/bmj.d8360)

¹ Mortimer F, Connor A, Stott A. Cumulative savings from green nephrology innovations [abstract presented as poster at joint Renal Association and British Transplantation Society 2013 annual congress].

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