

“Green Nephrology”

It is now widely accepted that global warming is the result of increasing emissions of carbon dioxide. Global warming has already resulted in significant climate change, and if continued, will result in mass starvation, wars over water and food, and mass migration. No part of the world will escape the consequences. Avoiding these, or even reducing the rate of change, should therefore be a priority at the international, national, organisational, and individual level. Reduction in carbon output will require major changes in the way we live; if enough people make these changes, the net effect on carbon output will be massive.

The NHS is responsible for at least 3% of the total carbon output of the UK (18 MtCO₂), 30% of public sector admissions; and the care of patients with kidney disease contributes disproportionately to this total. Healthcare workers also have the capacity to lead by example; if patients and carers witness healthcare taking climate change seriously and making concerted efforts to reduce waste and energy consumption, they are more likely to do so themselves. For these reasons, it all of us concerned with care of kidney patients need to work urgently to reduce the environmental impact of our work so as to achieve sustainable healthcare – meeting the needs of today’s patients without compromising the ability to meet the needs of future generations.

The major contributors to the NHS’s carbon footprint are procurement (mostly of pharmaceuticals), building energy use, and travel. We don’t yet know how the carbon footprint of kidney care breaks down, but we know that regular haemodialysis (unless at home) involves thrice weekly return trips by car, large amounts of plastic and packaging waste, and high use of energy and mains water.

Peritoneal dialysis involves even larger amounts of plastic and packaging. Some dialysis units are already working on reducing some of this waste, with re-use of post-RO water, efficient heat exchange, recycling of packaging, ensuring that only genuine clinical waste goes to incineration, and many other examples. Some centres are working on a ‘virtual clinic’ model where some patients are followed by phone consultation in combination with blood tests done locally, rather than the conventional model of travelling to the hospital.

Reducing wastage of drugs is another major potential source of savings. Many of these changes also save money by reducing waste, making the business cases easy to write. The forthcoming introduction of carbon taxation will make it yet more obvious that these changes are worth making. Other changes, like the virtual nephrology clinic, will require changes to the Payment by Results tariff to remove perverse financial incentives that reward inefficient care.

Technicians in kidney units have a major role to play in this work. Most nephrologists, including Clinical Directors, and most business managers, have only a very limited understanding of how water treatment works, or how dialysis supplies are used – but should be very receptive to ideas that will save money and reduce carbon output.

The Renal community has a great opportunity to lead the rest of the NHS by example. The BRS and the Renal Association have both adopted Sustainability policies over the last few months; each renal unit should now be doing the same.