How neurologists can care better on a changing planet

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Given that 2023 was the hottest year on record globally, climate change is increasingly obvious for all to see. This editorial explores why neurologists should care about this, and how they can care better for their patients in the face of it.

But where does one start? As climate change science consolidates the enormity of the problem, how can we make a tangible difference? We need only to reflect on the already apparent devastation to health, homes and livelihoods of some of the less privileged around the world. But even developed countries in temperate regions, such as the UK, have seen record-high temperatures and devastating floods in recent years. Clearly, the physical and psychological health effects of climatic extremes are not restricted to the most susceptible global regions.

Climate change is causing warmer summers and winters the world over. With this comes higher humidity, leading to wetter winters and more intense rainfall events, even in summer. The result is more heatwaves, floods, storms, droughts and wildfires. And as the climate crisis deepens, doctors wield a significant sphere of influence in society.[1] When it comes to neurology, there are two specific issues:

1. How does an altered, unstable climate affect patients with neurological disorders?
2. What can neurologists do in their day-to-day practice to improve the environmental outlook?

Unsurprisingly, the effects of climatic volatility are felt most strongly by those most vulnerable.[2] Those with autonomic disturbance (Parkinson's disease, neuropathies) and those taking certain medications (antipsychotics, anticholinergics) thermoregulate less well.[3] Those with mobility issues or cognitive impairment struggle to make the behavioural adaptations required during climatic extremes. Heatwaves and poor air quality increase the incidence of strokes.[4] Warmer nights impair sleep quality, exacerbating the symptoms of any chronic neurological disorder, including migraine, multiple sclerosis and epilepsy. More heatwaves result in more cases of heatstroke. The mental health burden worsens as a result of climate anxiety, increased stress and bereavement. Vectorborne diseases continue to spread beyond their traditional ranges. All of this will lead to a heavier burden on already struggling health services.

But we must not fail to address our collective contribution to the root cause. If one were to consider global healthcare as a separate country, then only four countries pollute the world to a greater extent. The challenge, therefore, is to reduce the damaging effects of healthcare while retaining the highest quality of both care and innovation. The UK's National Health Service (NHS) was the first major health service to declare its intention to reach net zero greenhouse gas emissions by 2040.[5] It makes little sense to be battling the health consequences of climate change while still fuelling climate change with our emissions. A Greener Trials Working Group, supported jointly by the Medical Research Council and the National Institute for Health and Care Research, is also developing ways for clinical trials to become more sustainable.[6]

Practising medicine sustainably does not mean taking unnecessary risks in patient care or withholding appointments, investigations and treatments. It means considering revised approaches that are equally, if not more, effective and acceptable (figure 1). We should use our clinical acumen and research to guide management rather than subjecting patients to unnecessary investigations. We should embrace the appropriate use of telemedicine when this is clearly acceptable to many patients. Enhanced digital systems ease communication between healthcare providers and optimise information flow, thereby minimising the number of duplicated investigations and prescriptions. Judicious prescribing can limit the deleterious effects of both polypharmacy and medication waste.

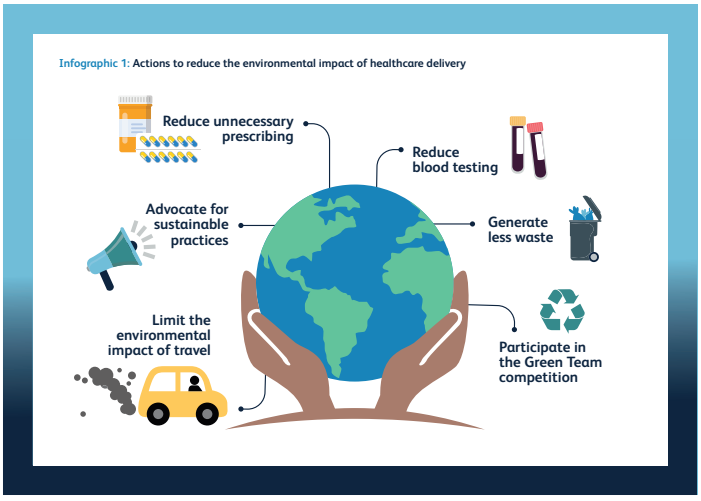

Figure 1 Infographic from the July 2024 Green Physicians Toolkit by the Royal College of Physicians: actions to reduce the environmental impact of healthcare delivery.[7] Copyright 2024 Royal College of Physicians. Reproduced with permission.

Accurate triaging to clinics and broader service availability at local hospitals reduce the carbon footprint of healthcare delivery. Our specialist societies and organisations, such as NHS England's 'Getting It Right First Time' programme, already produce guidelines designed to highlight best practice and to reduce unwarranted variation in care.

A large part of the NHS footprint is from the supply chain and pharmaceuticals. While the companies involved are aware of the NHS net zero requirements, continual pressure from doctors to pharmaceutical company representatives should accelerate progress. This also applies to the meetings and conferences we organise and attend. Delegates insisting on sustainable meetings will result in venues competing to meet our requirements, and organisers could incentivise, even mandate, sustainable transport to the most well-connected venues.

In addition, we must embrace local preventative strategies, exercise initiatives and social prescribing by incorporating them into our clinical practice. We should be visibly championing long-term strategies, for example smoking and air quality initiatives, and supporting our hospitals' sustainability projects. We should be regularly speaking to our patients about why these efforts are relevant to their healthcare. UK neurologists can support the UK Health Alliance on Climate Change to lobby government and industries on behalf of healthcare professionals.

Finally, there are general things we can do outside our professional roles as doctors, such as divesting from fossil fuels through our banking choices, travel patterns and energy consumption. Ultimately, change begins with us.

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