



College of Operating Department Practitioners

Statement in Support of Net-Zero Carbon Emissions in Healthcare

The World Health Organisation has identified that the overall health effects of a changing climate are overwhelmingly negative, and that climate change therefore affects the social and environmental determinants of health¹. In January 2020, the campaign *For a Greener NHS*² was launched which sets an ambitious, evidence-based route map and date for the National Health Service (NHS) to reach net zero. The report *Delivering a Net Zero Health Service*³ was published in October 2020 and described the advances the NHS has made in responding to climate change by improving its carbon footprint and reducing the environment impact of its service. The report also laid out the direction, scale and pace of change needed for the NHS to reduce its emissions to 'net zero'. Allied Health Professionals (AHPs) have a significant role to play in the sustainability agenda and currently the National AHP Leadership Team for England are coordinating a piece of work to highlight how AHPs support environment sustainability.

The College of Operating Department Practitioners (CODP) recognises that the professional actions of Operating Department Practitioners have an environmental impact. Areas of practice that would contribute to achieving net-zero carbon emissions:

Reduction in the Use of Inhalational Anaesthetic Agents and Gases

Inhalational anaesthetic agents (IAAs) and gases have a particularly high carbon footprint with 5% of the carbon footprint for acute organisations being from anaesthetic gases⁴. The most damaging anaesthetic inhalation agent is Desflurane⁵. Nitrous Oxide, a potent greenhouse gas, has less global warming potential than the IAAs though it does have much greater atmospheric longevity. Although the decision of anaesthetic technique lies with the anaesthetist, Operating Department Practitioners can play a role in reminding / raising awareness of sustainable anaesthesia together with educating students on the topic. Both the Association of Anaesthetists⁶ and Royal College of Anaesthetists⁷ have produced excellent resources on environmentally sustainable anaesthetic practice.

Reusable versus Single Use Equipment

The net environmental effect of reusable versus single use equipment is a complex calculation and the carbon footprint importantly depends upon the local energy source⁸. Patient and public safety will always be the most important consideration however if avoiding, reducing, and reusing of equipment is not possible, then recycling of the equipment should be considered.

Waste Disposal

Health Technical Memorandum (HTM) 07/01 provides details of safe management of healthcare waste. Segregation of waste at the point of production into suitable colour-coded packaging is vital to good waste management and colour-coded waste segregation guides can be found in HTM 07/01⁹. Operating Department Practitioners should remind colleagues about the appropriate and efficient recycling of waste. The cost of waste disposal is significant and a reduction in bagged infectious waste reclassified correctly as municipal waste could represent a potential year on year saving to the NHS of approximately £4,781,000¹⁰.

Energy and Water

Conservation of energy and water usage should be encouraged. Electrical equipment and lighting should not be switched on unnecessarily and should be switched off when not required. If involved in the commissioning of new build operating theatre suites, consideration should be given to the energy efficiency when purchasing capital equipment e.g. LED theatre lights. Almost 20 litres of water is used for each surgical hand wash at manually operated sinks, whereas motion sensors could dramatically reduce this volume⁸.

Non-Clinical Environment

Within offices and staff rest rooms, electrical equipment and lighting should again be switched off when not required. The use of reusable cups rather than plastic disposal cups should be encouraged, likewise the segregation of waste for recycling (paper / plastic / glass). Within some organisations, specific training and advice can be sought from Sustainability Teams or Sustainability Champions.

References

- ¹ World Health Organisation [*Climate Change and Health*](#) February 2018
- ² NHS England [*For a Greener NHS*](#) January 2020
- ³ NHS England and NHS Improvement [*Delivering a Net Zero National Health Service*](#) October 2020
- ⁴ Sustainable Development Unit [*Carbon Footprint from Anaesthetic Gas Use*](#) December 2013
- ⁵ The Lancet Planetary Health [*Anaesthetic Gases, Climate Change and Sustainable Practice*](#) June 2017
- ⁶ Association of Anaesthetists [*Our Environmental Work*](#) January 2021
- ⁷ Royal College of Anaesthetists [*Environment and Sustainability*](#) January 2021
- ⁸ *British Journal of Anaesthesia* [*Environmental Sustainability in Anaesthesia and Critical Care*](#) August 2020
- ⁹ Department of Health [*HTM 07/07 Safe Management of Healthcare Waste*](#) March 2013
- ¹⁰ Royal College of Nursing [*Freedom of Information Follow up Report of Management of Waste in the NHS*](#) February 2018