Sustainability in Surgery Strategy 2021

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Royal College of Surgeons of England

ADVANCING SURGICAL CARE

Contents

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Sustainability strategy

April 2021

Vision

The Royal College of Surgeons of England (RCS England) is committed to enabling surgeons to achieve and maintain the highest standards of surgical practice and patient care. We are committed to embedding financial, environmental and social sustainability with ethical purchasing into everything we do.

Definition and framework

The Academy of Medical Royal Colleges (AoMRC) provides a definition and framework[1]:

Sustainable healthcare involves ensuring the ability to provide good quality care for future generations by balancing the economic, environmental, and social constraints and demands within healthcare settings. A sustainable healthcare system maintains population health, reduces disease burden and minimises use of healthcare services.

The triple bottom line framework was developed to help organisations understand their broader impacts and consists of economic, environmental and social domains. To improve sustainability, organisations must ensure that their use of resources does not exceed available supplies, and that their impacts do not negatively affect the wider community, the environment, or future generations.

Climate change is the defining issue of this decade and it is imperative that the role of individuals as well as organisations is understood rapidly[2]. NHS England has an annual carbon footprint of 24.9 million tonnes CO2e (responsible for around 4% of the nation's greenhouse gas emissions), with two thirds due to the use of medicines, medical equipment and other supply chain aspects[3]. The operating theatre is a particularly resource intensive area, with the carbon footprint of an operating department within a large UK hospital estimated at 5,000 tonnes CO2e/year[4] and a single operation at 150-250kg CO2e[5], with major carbon hotspots including energy use, procurement of consumables and anaesthetic agents[6]. There is a significant challenge ahead to enable surgery to meet net zero carbon by 2045, in line with the Greener NHS strategy.[3]

General principles

The College is a member of the UK Health Alliance on Climate Change[7]. It will align itself with relevant national and international initiatives aimed at mitigating climate change, and the wider negative impact that human action is placing on our environment and current and future generations. This includes those initiatives within the UN Sustainable Development Goals[8]. The College also recognises its responsibilities to wider health and communities as a UK registered charity, adhering to the Charity Governance Code[9].

Within our activity we will seek to improve sustainable value, balancing patient and population outcomes against the triple bottom line – financial, social and environmental sustainability.

Financial sustainability

We will support implementation of initiatives that promote efficient and cost-effective use of healthcare resources while reducing variability of care and improving patient outcomes. The large number of consumable items used in surgery make a focus on procurement essential.

Social sustainability

We need to consider the ethical purchasing, production and sourcing of healthcare products alongside the drive for a reduced carbon footprint. We are aware of labour rights abuses within the surgical supply chain for goods used in the NHS, for example inadequate remuneration, poor health and safety and child labour in the production of surgical instruments in Pakistan, and modern slavery in immigrant workers employed in glove factories in Malaysia[10]. We will support initiatives aimed at promoting better working conditions in medical and surgical supply chains. We will also adopt ethical purchasing in sourcing commodities for use in College facilities, merchandising, catering and administration.

Environmental sustainability

The principles of reduce, reuse and recycle help to reduce environmental impact and can be applied to individuals, to organisations and through patient pathways.

Reducing the need for surgery may include promoting surgical disease prevention and patient education and empowerment[11]. There may be co-benefits to this approach, for example increasing active travel improves mental and physical health from regular exercise as well as reducing particulate pollution from fossil fuel emissions and wear on brakes and tyres from motorised vehicles[12]. Shared Decision Making involves discussion focusing on the patient's own expectations and values and can reduce the need for surgery[13]. We can also reduce consumption of resources through streamlining patient pathways. In general, the environmental impact is lower for reusable rather than single use items (such as linens[14] and instruments[15]) and in many operations single use products are a major contributor to the carbon footprint. We will champion use of reusable items wherever safe and feasible, alongside maintenance and repair to maximise the lifespan of items in accordance with principles of a circular economy[10]. We will support reduced packaging.

The College is well placed to judge the risks of infection control policies that mandate single use items, causing waste and additional costs. This fits with The Royal College of Nursing's 'Glove Awareness' campaign[16]. Regarding single use surgical instruments, the ASGBI 2012 statement on cost-effective surgery commented:

'The risk of cross infection is infinitesimally small. But hysteria about this leads to colossal waste. For example, it is difficult to justify the disposal of over a million stainless steel nail clippers each year because of a theoretical risk of transmitting prions. Similarly, the insistence by industry that certain instruments, such as diathermy hooks, must be single-use only might imply profiteering. It is estimated that, by undertaking acceptable safe reprocessing, there would be a 50% reduction in medical device costs. Reprocessing also reduces the amount of waste produced. It has been estimated that, with a 20% increase in hospital reprocessing, an average-sized hospital can divert 2,150 tons of medical waste from local landfill sites'.[17]

There are win-wins for sustainability and better health. For example, the most common reason for a child in the UK to undergo an operation is removal of decayed teeth. Demanding reduction in fizzy drink availability would reduce usage of single use plastic bottles and reduce the need for childhood dental surgery.

Key people

Within the College

College staff are familiar with the daily business of the organisation and so are ideally placed to identify and lead areas for improvement. Individuals may choose to take on a role as Green Champion for sustainability in their area.

The Sustainability in Surgery (SiS) Group[18]

The Sustainability in Surgery (SiS) Group was established in December 2019 to look at issues of sustainability in surgical practice, associated industries and within the College itself. The group comprises interested members of College Council including the Faculty of Dental Surgery, trainee representatives and invited members with relevant expertise. The SiS Group will help the College with its strategy.

Strategic priorities

1. **To be an influencing voice with other relevant agencies and bodies involved in the broad provision of surgical or health care.**
2. **To guide, educate and empower fellows, members, affiliates and associates to improve and lead environmental, social and financial sustainability in their own surgical practice and that of their organisation.**
3. **To embed sustainability in the governance, structures and processes of the College, and so ensure the College acts as an advocate for sustainability and the highest standards of ethical purchasing.**
4. **To advocate for research into sustainability in surgical practice and ensure that the College and its working partners are using best evidence to inform strategy.**

Operationalising the strategy

College influence across organisations

1. Engage with those responsible for training and curricula, including for undergraduates, Foundation Doctors, Surgical Care Practitioners, Core Surgical Training and all surgical specialties, to ensure that sustainability is included as fundamental to good surgical care.
2. Engage with governing and regulatory bodies, for example MHRA (Medicines and Healthcare products Regulation Agency), SDU (Sustainable Development Unit), NHS Supply Chain, PHE (Public Health England), NHS England, NIHR (National Institute for Health Research), NHS Wales and other organisations in the devolved nations. In particular, interdisciplinary work may be required to balance the environmental harm of single use items against risk of infection where such risk is low or weak in evidence.
3. Ensure that our College is viewed as a role model and leader in issues of sustainability.
4. Oversee College representatives on other related bodies, including the UK Health Alliance on Climate Change (UKHACC) and The Academy of Medical Royal Colleges (AoMRC) 'Choosing Wisely Steering Group'. Liaise and work with other relevant bodes, including The Royal College of Anaesthetists (RCoA), The Royal College of Surgeons of Edinburgh (RCSEd) and all subspecialty associations, such as The Association of Surgeons of Great Britain and Ireland (ASGBI). Advocate for recognised positions of responsibility relating to sustainability.

Influence across the surgical community

5. Develop position statements, education, guidance and tools to support surgeons and dental surgeons in developing and maintaining sustainability in surgical practice.
6. Support research evaluating sustainability of surgery and identifying targets for change (e.g. via research fellowships and working with relevant research authorities).
7. Gather examples of best practice and research; disseminate these through an online database or portal, regular e-bulletin,or other fora as appropriate.
8. Involve and engage the surgical community including surgeons in training and trainee organisations such as ASiT, for example through seminars, events, awards and competitions in sustainability. This will embed these values in the future surgical workforce.
9. Ensure patient and public engagement.

Within the College

10. Develop the College's role in, and understanding of, sustainability in surgery including dental surgery, and work with the SIS group to ensure this is embedded into the long-term strategy for the College and its estate.
11. Work with relevant leads to ensure that there is a focus and priority on sustainability issues within all College activities, including learning, research, examination, quality assurance, committee meetings and events. Strategies may include reducing use of paper (for example using electronic rather than printed documents), reducing travel through use of video-conferencing or telephone meetings, eliminating conference bags (or replacing with a recycled paper bag where necessary) and support for green transport in College activities (including facilitating travel by bicycle, offering secure storage and reimbursement for green travel).
12. Ensure that the College investment policy precludes investment in fossil fuels and encourages investment in sustainable industries.
13. Ensure that all College departments purchase commodities from Fair Trade sources.[19]
14. Provide a representative from the SIS group to the College Global Committee and other committees as appropriate.
15. There are multiple suggested actions and details from AoMRC included within Appendix 1.

Responsibility and reporting

Each committee and department of the College will identify SMART goals relevant to its area of responsibility and will report regularly through standing committees against these. Relevant information from its committees will be shared with the Board of Trustees. Progress will be shared with membership in the Annual Review.

Review

The sustainability strategy will be reviewed in April 2023 so that it can be updated.

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With thanks to

The Royal College of Anaesthetists Sustainability Strategy 2019–2022.

Appendix

AoMRC items for Colleges and Faculties to consider for leadership on sustainability[1]. This list will be reviewed by the College on an annual basis.

1. College carbon footprint/monitoring
2. Sustainable Development Management Plan
3. Energy Policy
4. Collecting data/action on member travel
5. Improved heating efficiency / reduction in room temperature
6. Sustainable procurement
7. Video conferencing
8. Transfer to virtual servers
9. Waste policy / zero waste to landfill
10. Sustainable requirements of contracted services
11. Progress on paper reduction
12. Examined viability of paperless publishing
13. Efficient / LED / infrared lighting
14. In-house filtered water system / end to bottled water
15. Sourcing at least some organic, local and fair trade food
16. Signatories to 10:10
17. Onsite food composting
18. Green/growing roof
19. Green champions/green group
20. Sustainability day/week
21. Encouraging physical activity in staff
22. Staff cycle to work scheme
23. Reduction in plastic/paper cup use
24. Sustainability featured in staff newsletter
25. Clothing recycling
26. Sustainability focus within training / exam question underway
27. Sustainability climate / change college policy / position statement
28. Sustainability featured in clinical journal/ president's bulletin
29. Sustainability as feature of main college conference (past or planned)
30. Conference / event on sustainability (past or planned)
31. Sustainability page on website
32. Publication on sustainability / climate change
33. Sustainability as a work stream within committee or clinical group
34. Clinical sustainability network
35. Action on hazardous chemicals
36. Signatory to Climate & Health Council Pledge
37. Member of Global Green and Healthy Hospitals Network
38. Warwick Manifesto on sustainability and health
39. Sustainability fellow
40. Sustainability standards set for specialty
41. Tools for sustainable clinical practice developed
42. Work underway to consider environmental impact of specialty
43. Patient involvement initiative
44. Supporting members to develop sustainable clinical practice
45. Position paper on sustainable clinical practice within the specialty
46. Discussion at exec/board level on the development of sustainability within the specialty
47. Engaged with Choosing Wisely Initiative and/or Academy Waste Report
48. Other waste reduction initiatives within the specialty
49. Redesign of clinical processes to reduce paper use within the specialty