



**Sustainable
Healthcare
Coalition**

Accelerating greener healthcare: New opportunities and old challenges

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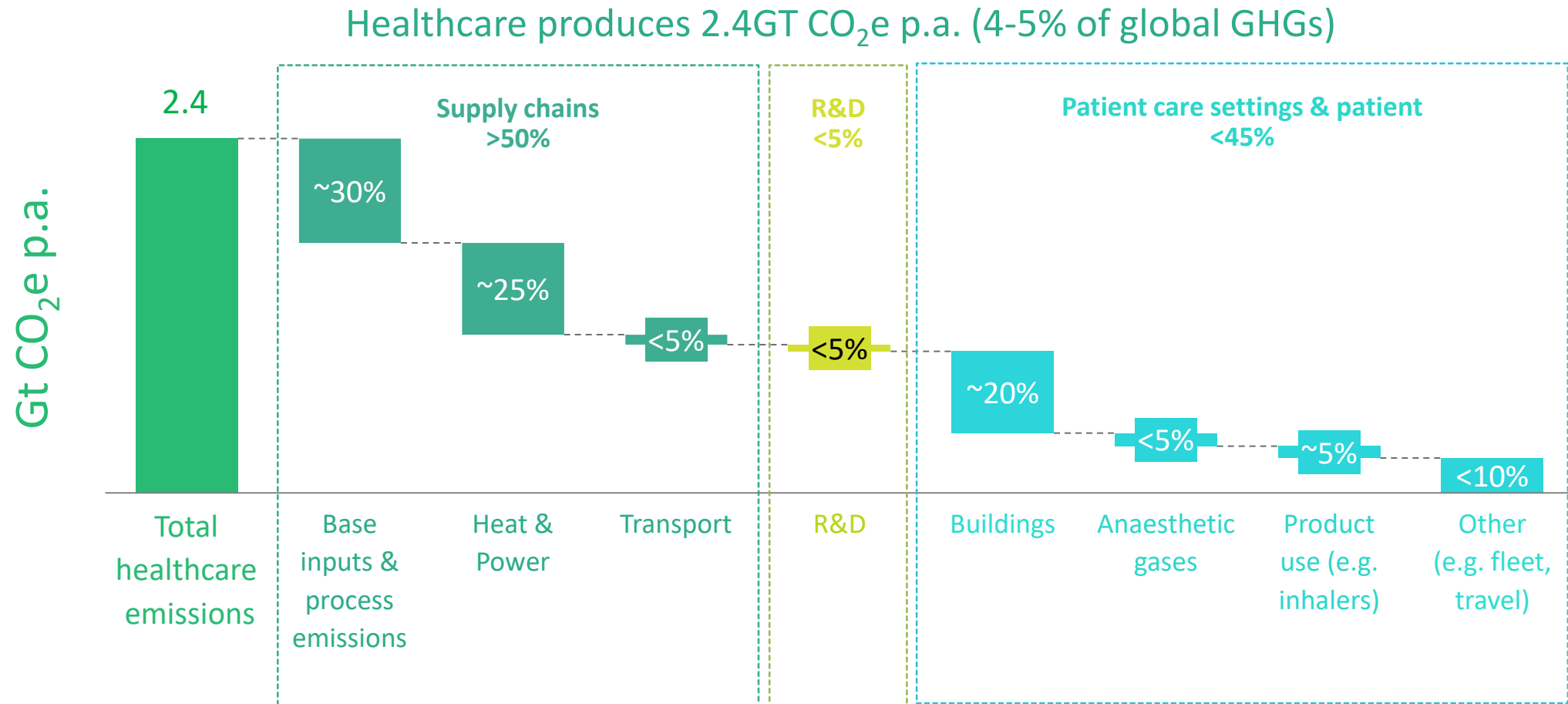
Decarbonising Life Sciences, 16th September 2026

Reframing sustainability in a changing world



Decarbonising Life Sciences : 16th September 2026

Sustainable By Design: Innovative Action Needed Across the Value Chain



Source: Healthcare without harm/Arup (2019); Healthcare without harm/World Bank (2017); UK National Health Service (2020); The Lancet Countdown (2020, 2018); Environmental research letters (2019); Health affairs (2020); BCG analysis

The Sustainable Healthcare Coalition

...is a partnership of healthcare companies and other health agencies drawn together to address some of the most pressing sustainability issues in global healthcare.

Our purpose is to facilitate the journey towards good health and wellbeing on a finite planet, through **open-minded collaboration** across **public and private healthcare**.

We **engage**, **connect** and **accelerate action**.

Our core group draws in participation from other health system players including trade bodies, state healthcare providers, public health institutions and international agencies.



Measuring Up for Impact

- World's first guidance on how to measure the **carbon footprint of pharmaceuticals and medical devices** and the environmental impact of **whole care pathways** and **clinical trials** using an activity analysis;
- Understand the current footprint of services and how **innovation can transform healthcare systems** through **case studies** that visualise care and **demonstrate impact**;
- Freely available **method & guidance systems** and an **online calculators** and emission



CARE PATHWAYS MODULES

- GP consultation
- Patient travel
- Emergency Department visit
- Inpatient bed day
- Surgical procedure
- Self-management



Patient Care Pathway Carbon Calculator

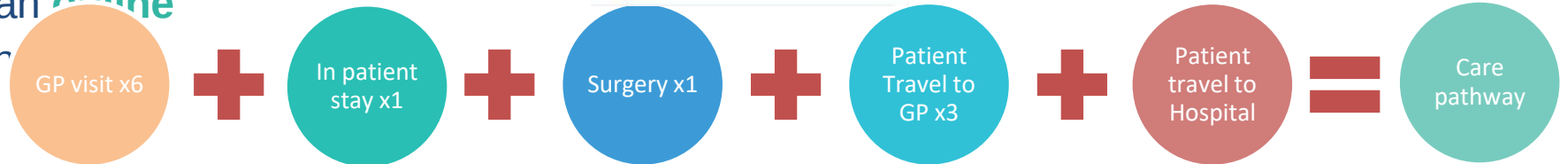
Start Calculation

Care Pathways: Appraising Sustainability

A Life Cycle Assessment Method Document



March 2026



Clinical Excellence: Sustainable by Design

Activity Based Method to assess the whole patient pathway, identifying the greatest opportunities to reduce impact across the system through innovation and collaboration :

Knowledge Hub

- One-stop portal with easy to use, step-by-step guides, carbon calculator tool, worked examples, case studies

<https://shcoalition.org/sustainable-care-pathways-knowledge-hub/>



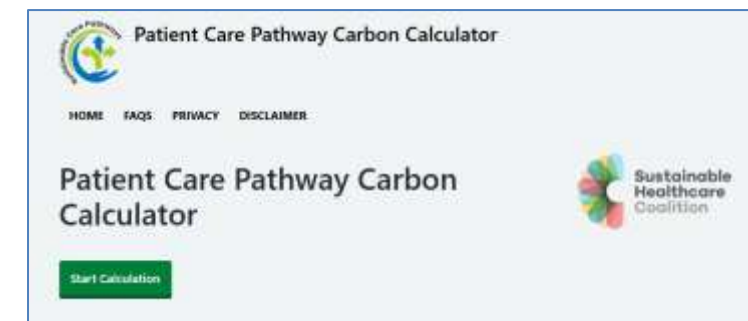
Care Pathway Carbon Calculator

- Easy to use, entry-level tool for simple assessments and education

<https://carepathwaycarbon.org/>



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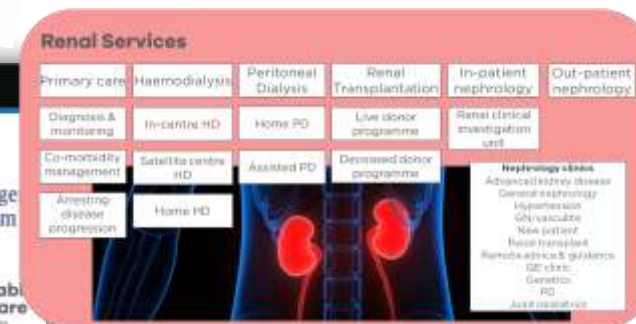
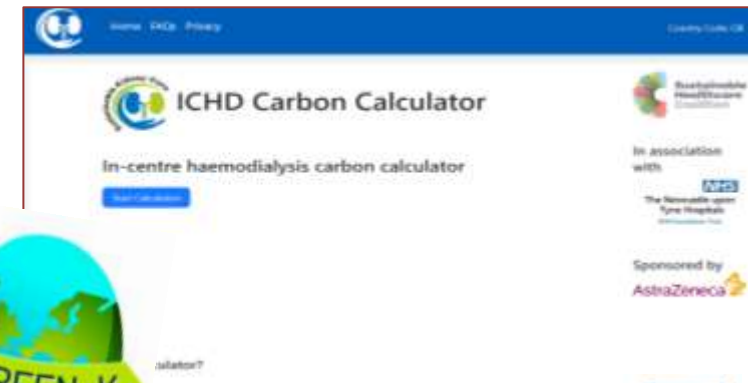
Clinicians Driving Innovation

Trusted partnerships join up the system and accelerate change by learning together through case studies & innovation:

- **Carbon footprint of renal haemodialysis services** at Newcastle UTH informing local and national carbon reduction plans with an **international carbon calculator** and **novel procurement asks**;
- **Shifting towards prevention and early intervention** such as testing for pre-eclampsia, vaccination for influenza, and modifying disease progression;
- **Measuring the impact of digital** approaches supporting selfcare;
- **General practice carbon calculator** to identify and manage non-clinical emission hotspots.



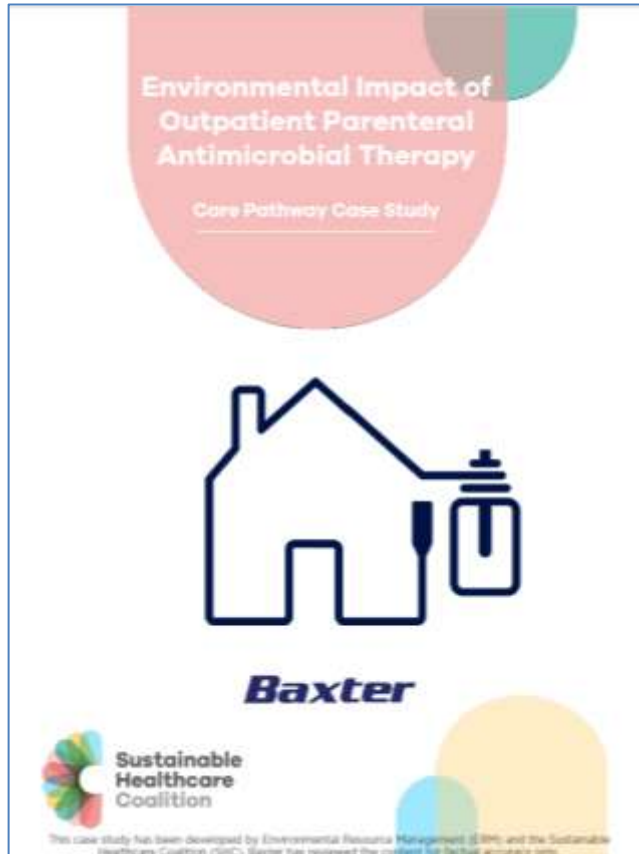
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Moving care to the patient – opportunities in health policy

shifts

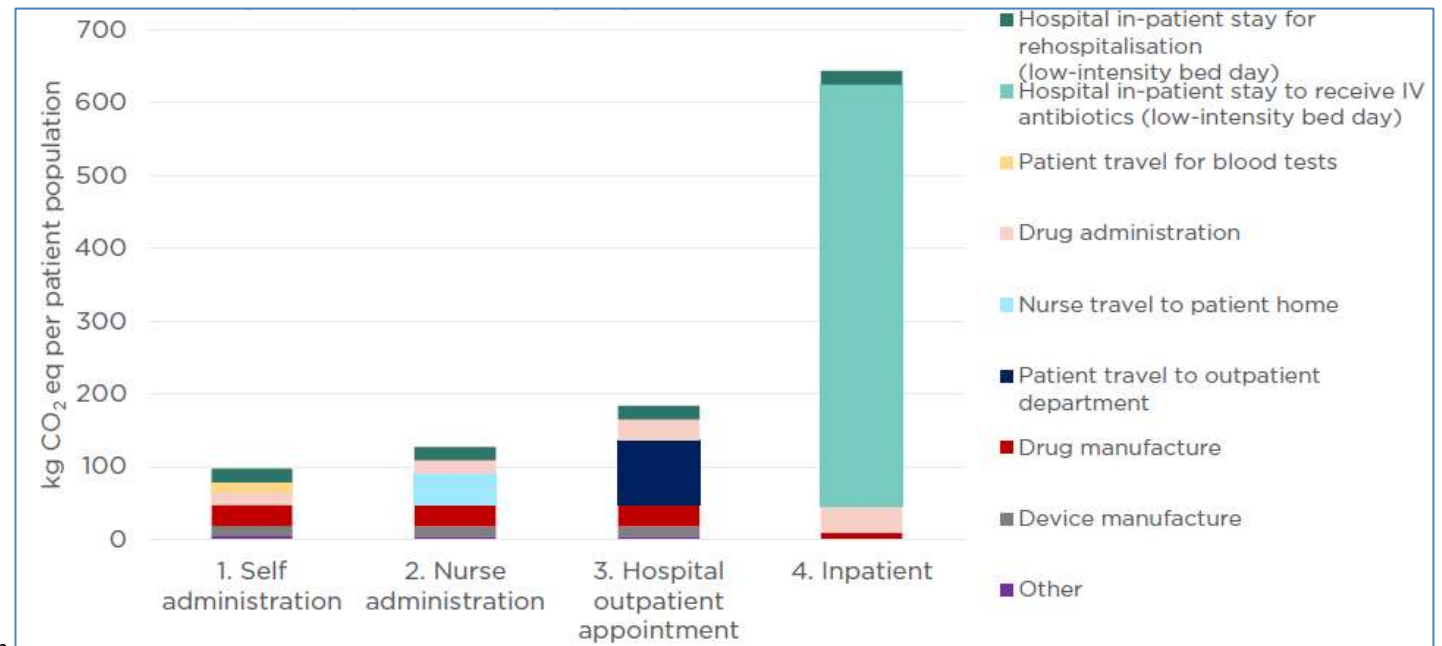
Intravenous Parenteral Antimicrobial Therapy is usually delivered in hospital settings. Shifting delivery models into the community can reduce water use and waste and save up to 85% of emissions:



<https://shcoalition.org/environmental-impact-of-outpatient-parenteral-antimicrobial-therapy/>



Scenario Results per patient		GHG kg CO ₂ eq	Water m ³	Waste kg
1	Self administration	97.2	241	5.5
2	Nurse assisted administration	127	241	5.4
3	Hospital outpatient appointment administration	184	292	7.5
4	Inpatient administration	643	1,085	59.2

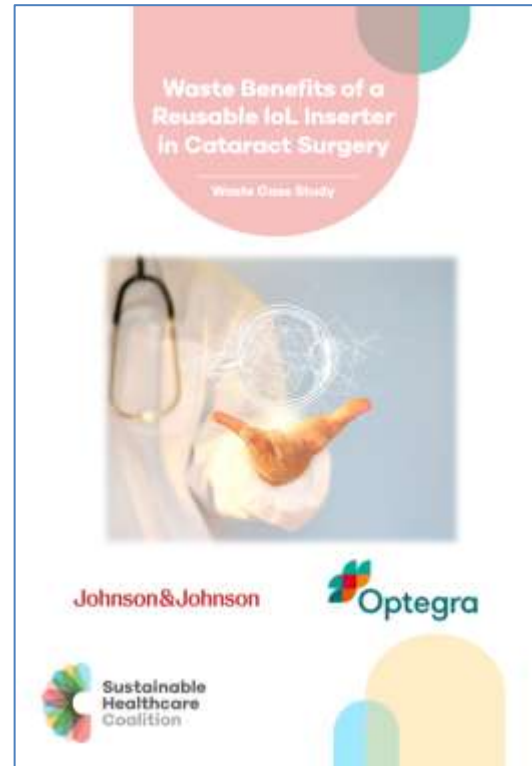


Decarbonising Life Sciences : 16th September 2020

Assessing Impact – The Role of Novel Devices in Common Procedures

Cataract surgeries, the most frequently conducted surgical procedure globally, are often performed with a **single-use intraocular lens (IoL) inserter**:

- When a **single-use IoL inserter** is used, the whole device is disposed of and goes to waste treatment.
- With a **reusable inserter**, only the IoL cartridge is waste. The inserter is sent for sterilization and reuse up to 500 times.
- In a pilot study at Optegra, the switch to reusable meant **less frequent deliveries, less storage space occupied and less waste**.
- Scaled up, the technology could save over **9,300kg of waste per year in England**



<https://shcoalition.org/waste-benefits-of-a-reusable-iol-inserter-in-cataract-surgery/>

Hip replacement (Total Hip Arthroplasty, THA) is a **high-volume procedure** with **~117k** being performed a year in the NHS:



<https://shcoalition.org/an-environmental-impact-assessment-of-total-hip-arthroplasty-tha-surgery/>

- Revision THA surgery has a carbon footprint about three times larger than a primary THA procedure;
- The **carbon footprint** of a collared hip implant may be bigger than an equivalent collarless one, but a **lower frequency of revisions** means that it has a lower lifetime carbon footprint;
- Using 2024 National Joint Registry figures, **598t CO2e could be avoided** had all the cementless hip implants that year been collared.
- And ~700 patients will have **avoided a revision** THA over the decade following their surgery .

New Opportunities: an International Collaboration on Care

Pathways

- **Work together** to **build the data base of activities** and its range **across geographies** and emission factors that underpin assessment capability with the Sustainable Markets Initiative
- **Co-developing** understanding, adoption and share **learnings**
- **Community of Practice** to join up change



<https://www.linkedin.com/groups/16369001/>



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**Sustainable
Markets
Initiative**



Patient Care Pathway Resources

Knowledge hub on SHC website



<https://shcoalition.org/sustainable-care-pathways-knowledge-hub/>



Care Pathway Carbon Calculator



<https://carepathwaycarbon.org/>

Community of Practice



<https://www.linkedin.com/groups/16369001/>



The SMI: Shaping the Market and Accelerating Delivery

The Sustainable Markets Initiative (SMI) is the world's go-to private sector organization for sustainable transition. With the vision of its founder, His Majesty King Charles III, and its unique convening power, the SMI facilitates action between world leaders and CEOs to position sustainability at the heart of global value creation.

**Sustainable
Markets
Initiative**

Commitments of CEO-level Health Systems Task Force with members from across the healthcare ecosystem:

Leverage digital health solutions to decarbonise clinical trials

- Commit to a common clinical trial footprint framework by 2023
- Measure and report on phase 2 & 3 clinical trial emissions by 2025
- Set trial emission reduction targets for 2030 at the latest
- Incentivise CROs/ suppliers to commit to a framework to measure and reduce emissions
- Target 90%+ of trials starting in 2025 to include a review of how digital solutions can reduce emissions



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**Sustainable
Markets
Initiative**



CEOs from seven global healthcare companies have signed an Open Letter to address the 100 million tonnes of carbon dioxide equivalent emissions produced by clinical trials every year.

Read the Open Letter at [sustainable-markets.org](https://www.sustainable-markets.org)

¹ Commitments as stated in SMI press release, 3 Nov 2022 : <https://www.sustainable-markets.org/news/seven-pharma-ceos-announce-new-action/>

Low Carbon Clinical Trials: creating a standardised assessment to estimate emissions from clinical trials &

Vision drive action

To create a sector framework:

- **Methodology and guidance** to assess and report on carbon footprint of clinical trials
- In support of reporting of footprint, an open-access **tool** with **activity-based data** to identify emission hotspots

Key organisations involved



Milestones

- Methodology and guidance published
- Open-access tool v.3 launched
- Engagement with key stakeholders as part of process to build awareness, acceptance and deployment through supply chains
- Expanded database and Knowledge Hub with case studies

Low-carbon clinical trials resources and an invitation to

Sustainable Clinical Trials Knowledge Hub



What is the Clinical Trials Hub? Assessing a Clinical Trial Taking Action with the Carbon Calculator Building Sustainability into Trial Design

Knowledge hub:

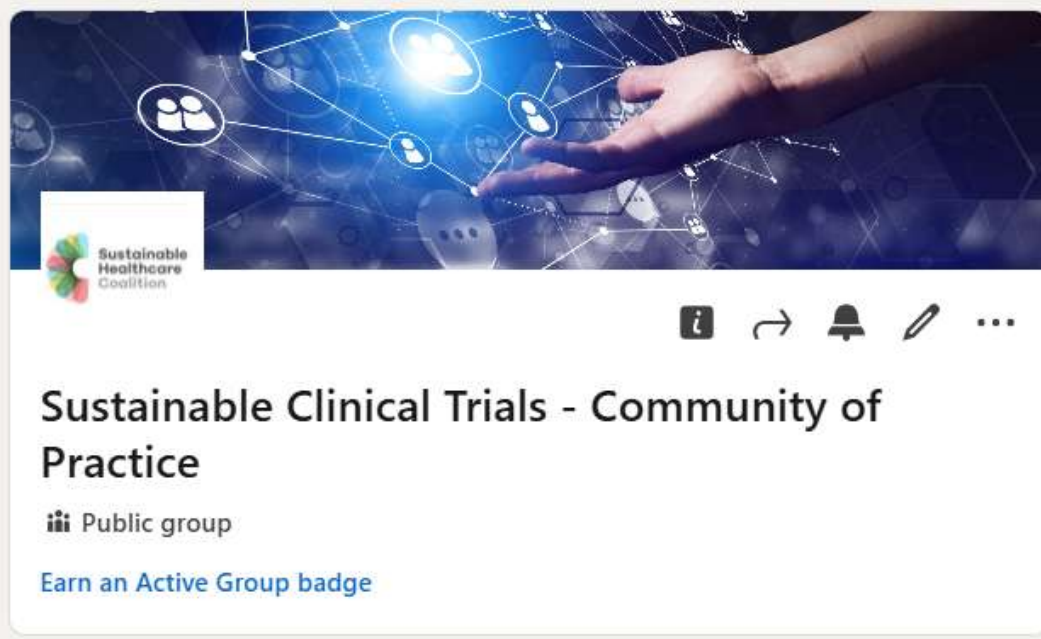
<https://shcoalition.org/clinical-trials/>



Join the Community of Practice

Clinical trial carbon calculator:

<https://clinicaltrialcarbon.org/>



New Opportunities for Collaborative Action: the Circularity Forum

Supporting a future Circular Economy by...

- Identifying the actions we can take both individually and collectively
- Learning from evidence and sharing good practice in action
- Identifying the barriers and blockers and opportunities through practical examples to support policy implementation



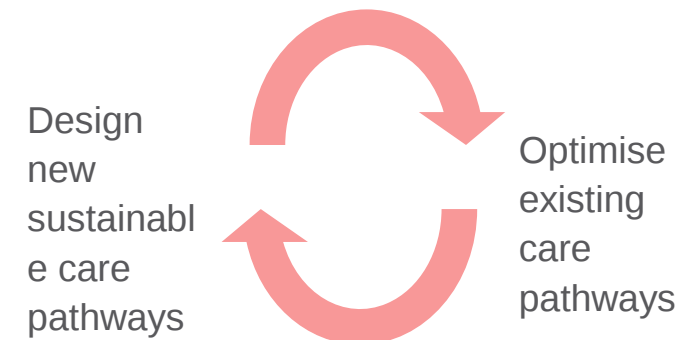
Making the right choices on decarbonization a

Explore the lessons we can learn from policy makers and procurement to drive action and align incentives:

- What **information do we need** to make these “good choices” and what are the **dilemmas** we must navigate?
- What are the information, policy frameworks that will **enable sustainable choices to be turned into new practice models**?
- What is **good enough information** to act, and how do we balance that against the tough choices that **stretched healthcare systems** must make?
- What opportunities are there to **match intention with action**?
- How can we **reimagine system rules** so that quality is based on environmental impact as well as clinical outcomes & cost?



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Lessons from Evidence-Based Practice: How to Be?



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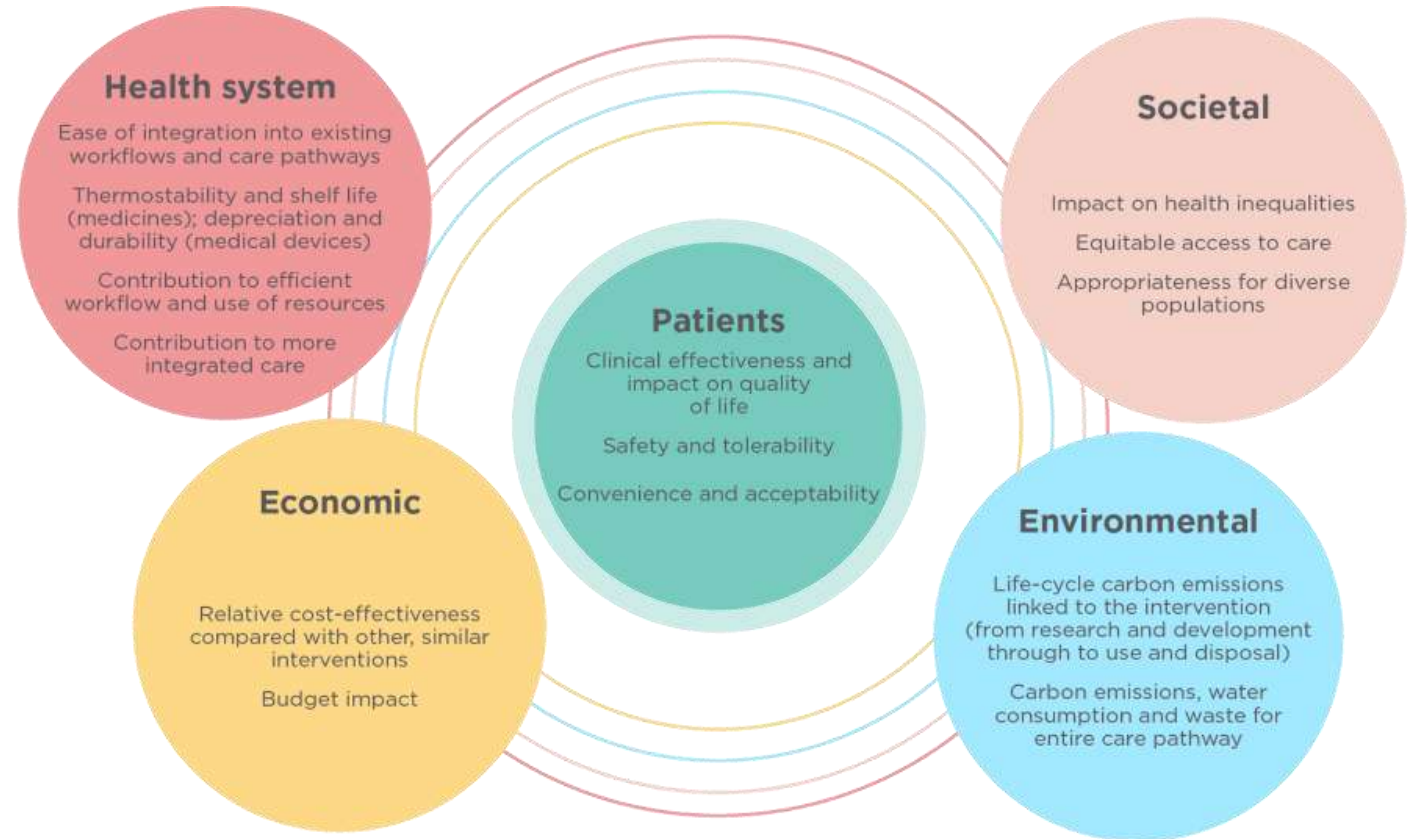
~~CHANGE
THE RULES~~

**BACK
TO THE
FUTURE**



Developing a Comprehensive Vision of Value

The case for why environmental impact should be a component of value-based care with quality based on environmental impact as well as clinical outcomes & cost:



Value-based procurement: an alignment opportunity



Supply Chain



Sustainable Procurement Resources



Sustainable Risk Assessment Support



Case Studies



Well-being of Future Generations (Wales) Act 2015



ATACH

Alliance for Transformative
Action on Climate and Health
WHO hosted network



New Opportunities: Clinicians Driving Innovation Through Procurement

Understanding pathway impacts and shaping products and services through procurement :



Target Unmet Need	Engage (global market for innovative products / services)	Procure Novel products / services
✓ State Goals ✓ Vet by procurement experts ✓ Incorporate expert feedback ✓ Create / 'Joint Statement of Demand' draft	• Stakeholder consultation (<i>kidney community, later industry</i>) → Incorporate feedback • Supplier / industry consultation → Incorporate feedback	• Finalize strategy & update JSD with endorsing societies • Distribute initial generic JSD to stakeholders • Distribute JSD to supply chain • Initiate development of <u>product-specific JSDs</u>

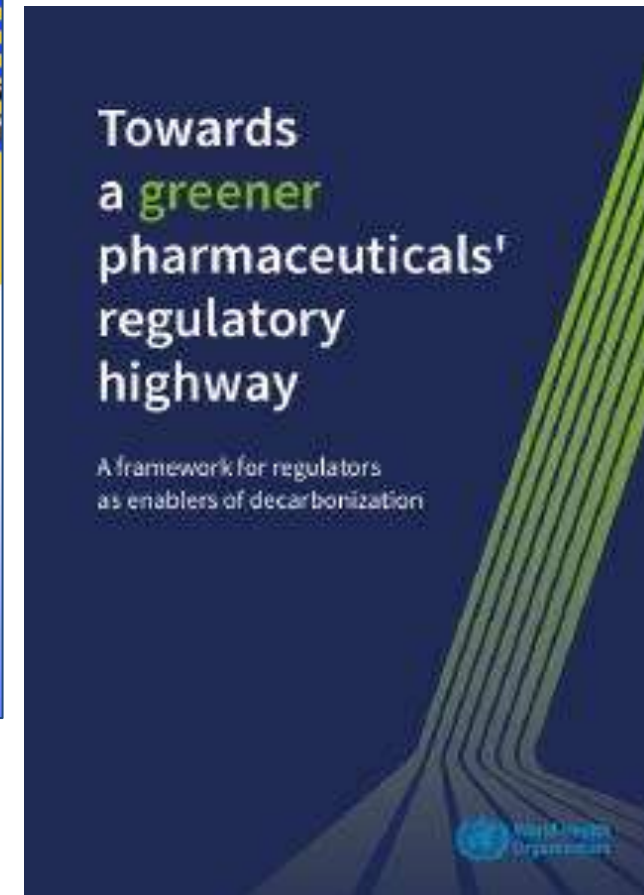
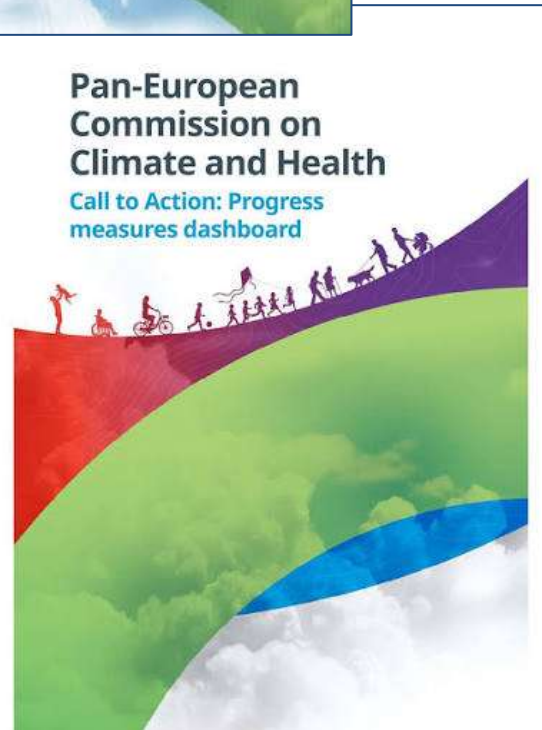
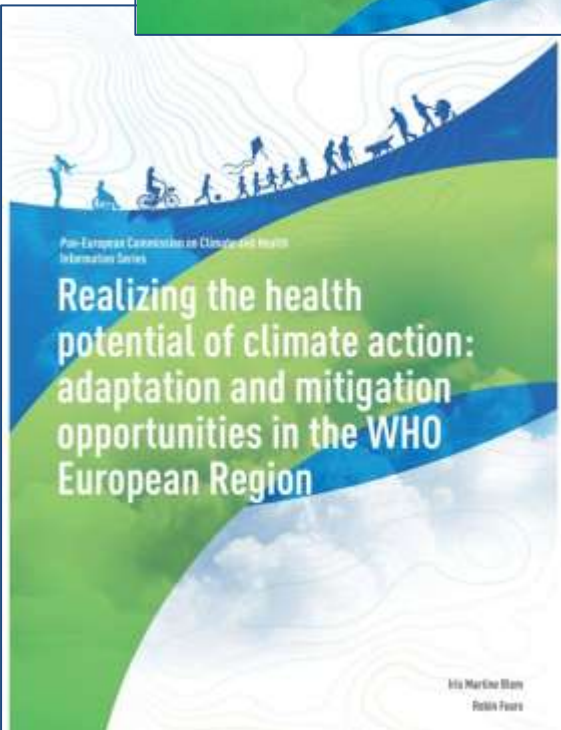


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- **haemodialysis acid concentrates**
 - **reverse osmosis systems**
 - **dialysis-related consumables**
 - **innovative dialysis systems**



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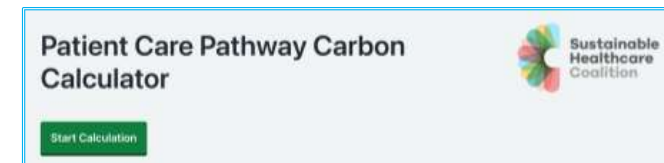
Seizing new opportunities and commitment: innovation, growth, resilience, agility & level playing fields through standardisation



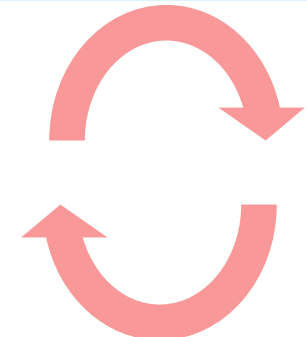
Accelerating action : Making the most of new

Trusted partnerships join up the system and accelerate change through innovation:

- **Action is needed across the whole value chain:** supply chains must be a key focus for decarbonisation and understanding their impact can drive innovation through procurement;
- **Measuring impact with consistent metrics** demonstrates that change is possible by identifying hot spots and bringing a new lens to old problems of how care and research can be delivered;
- **Reimagine system rules** so that quality is based on environmental impact as well as clinical outcomes & cost which are often mutually reinforcing goals;
- **Cross-sector collaborations** encourage open-minded conversations with common purpose, seek new perspectives and possibilities from clinicians and patients, and will be critical for future success;
- **Act now** with an experimental mindset and learn by doing.

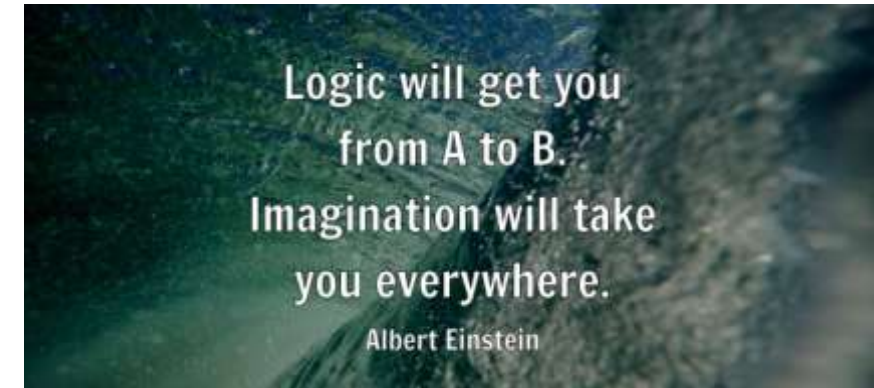


Design
new
sustainable
care
pathways



Optimise
existing
care
pathways

Beyond the Evidence: Leadership, Values, Choices and Decisions



Say hello...

We are always open to conversations and engagement with like-minded organisations we can collaborate with on common agendas.

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