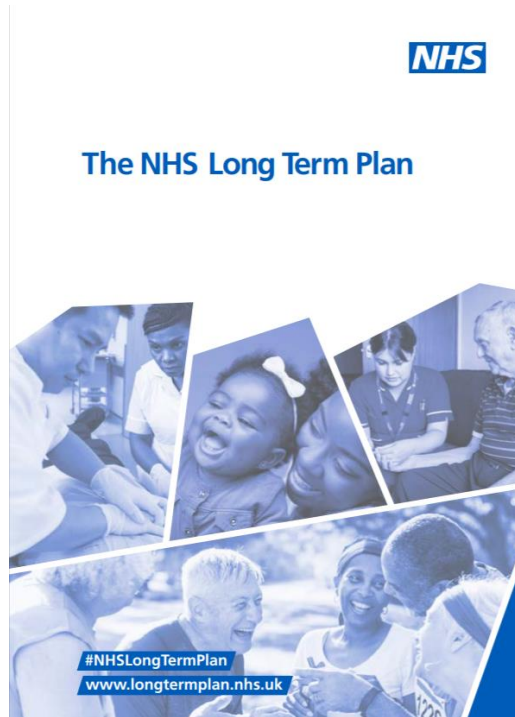


NHS Sustainability: Anaesthesia and Surgical Pathways

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The Long Term Plan



A 2% carbon reduction in the NHS will be
'delivered through transforming
anaesthetic practices'

p120

Anaesthetic gases

- Volatile anaesthetic agents
 - Isoflurane
 - Sevoflurane
 - Desflurane
- Nitrous oxide
- Powerful greenhouse gases

Global warming potential

	GWP	Persistence	Miles/MAC hour
Desflurane	2,540	14 years	230
Sevoflurane	130	1.1 years	30
Isoflurane	510	3.2 years	
Nitrous oxide	298	114 years	
Methane	25		

Solutions

- Avoid surgery!
- Low flow anaesthesia
- Intravenous anaesthesia
- Regional anaesthesia
- Alternative pain relief in labour and emergency care
- Recover and recycle volatile agents

Perioperative care

- Streamlined pathways
- From contemplation of surgery to recovery
- Good patient care and outcomes are more sustainable ie use less resource
- Triple bottom line
 - Social + Environmental + Financial impacts



CPOC is a partnership between



The surgical patient journey

Pre

- Pre-op – investigations, anaesthetic assessment
- Minimise trips to hospital

Intra

- Admit on day of surgery
- Deliver safe anaesthesia and surgery with all necessary prophylaxis

Post

- Early detection and prompt treatment of complications
- Discharge when fit with appropriate meds, information and FU plan

Waste

- Almost 4kg per day per UK patient
- More than France or Germany
- Theatres particularly bad
- Single use vs reusable
- Immediate £ cost vs long term environmental cost

What is anaesthesia doing?

- AoA Environmental Task Group – RCoA, industry, lay members
 - First Fellow in Sustainable Anaesthesia
 - 2% group
- Education
 - Switching to lower carbon techniques
 - CO₂ calculator app
- Building networks – social media

Any questions?