Managing Sustainability & Environmental Impact in Endoscopy

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“The moment we decide to fulfil something, we can do anything.”

Greta Thunberg
Background

NHS England has announced its commitment to achieve net zero carbon emissions by 2040, and net zero within its supply chain by 2045 (NHS 2020).

Endoscopy is the third highest emitting hospital department generating about 3.09kg of waste per bed day.

Which is equivalent to burning 39 million pounds of coal or 13,500 tons of plastic.
Climate change and health

“Climate change is a major threat to health and threatens to undermine the last 50 years of public health gains,”

(Haddock et al 2021)

- Respiratory health due to pollution and smoke from wildfires
- Future pandemics like Covid-19
- Enteric pathogens due to raising water levels and flooding
- Malnutrition due to crop failure
What we need to do...

- Highlight the problem
- Engagement from your Teams
- Buy in from Management
- Close working relationships with local recycling centres
- Start with the simple things first

1.3 million employees in NHS as a whole – small changes make significant impact!
Making a change – how to start

- Change in Culture and Behaviour
- Creating a team of “Green Champions” or “Green Team”
- Sorting waste – separating clinical waste from domestic
- Recycling hard plastics & instruments
- Networking with waste management teams
- Work with local recycling centres
- Creating a sustainability promise
Appropriate patient selection & reduction in the amount of endoscopy could have the largest impact on carbon emissions

- Can surveillance procedures be reduced?
- Are there alternative investigations?
- Are procedures over used?

This will require a shift in behaviour patterns and attitudes
The Green Champions – our catalyst for change

Need to be:-

• Motivated
• Passionate
• Persuasive
• Informed
• Resilient
Our Green Champions
Waste management

- Sort domestic, clinical and recycling
- Recycle hard plastics
- Instrument recycling
- Reduce paper

- Dignity Shorts
- Absorbent pads
- Sterile Water and Bottles
Some of the hard plastic we can recycle
Instrument recycling

YES
• Biopsy forceps
• Guidewires
• Snares

NO
• Needles
• Syringes
• Ampules

Support from teams is essential
Nitrous Oxide is a greenhouse gas
It remains in the atmosphere for 110 years once released
The warming potential of nitrous oxide is 300 times that of carbon dioxide
When used in healthcare, up to 60% of nitrous oxide escapes into the atmosphere
Look to educate our patients to make an informed choice

Entonox (50% nitrous oxide and 50% oxygen)
What’s Next?

Continue to embrace the sustainability challenge

• Seek support/advice from other colleagues/departments/trusts
• Work with waste management teams
• Challenge industry regarding packaging
• Reduce the amount of sterile water used
• Paper and printing reduction
• Continue to develop links with local recycling centres
• Keep up the enthusiasm!
“What do you want to be when you grow up?”

“Still here,” said the Polar bear.
References


Thank you for listening