NICE National Institute for Health and Care Excellence

Medical devices and sustainability: claims and evidence in NICE Medical Technologies Evaluation Programme

Faye Sheldon[1], Liz Islam[1], Paul Dimmock[1]

[1] Medical Technologies Evaluation Programme (MTEP)

Background

MTEP at NICE evaluates medical devices to produce either medical technologies guidance or medtech innovation briefings (MIBs). MIBs are NICE advice which aim to present a summary of the evidence for new and innovative devices. Sustainability of medical devices is explored by NICE in the information submitted by companies and is becoming an increasingly important global consideration as we look to improve efficiency and reduce waste.

Key sustainability aims

- Reduce CO_2 emissions
- Reduce greenhouse gas (GHG) emissions
- Less plastic waste
- Sustainable use of finite resources

Results

- Of 68 technologies notified to MTEP, 45 (66%) claimed at least 1 sustainability factor
- Of the 23 not claiming sustainability, 65% claimed no benefits or said the question was not applicable to their technology
- Claims related to recyclability and reduction in resource use
- Few claims related to single use plastics

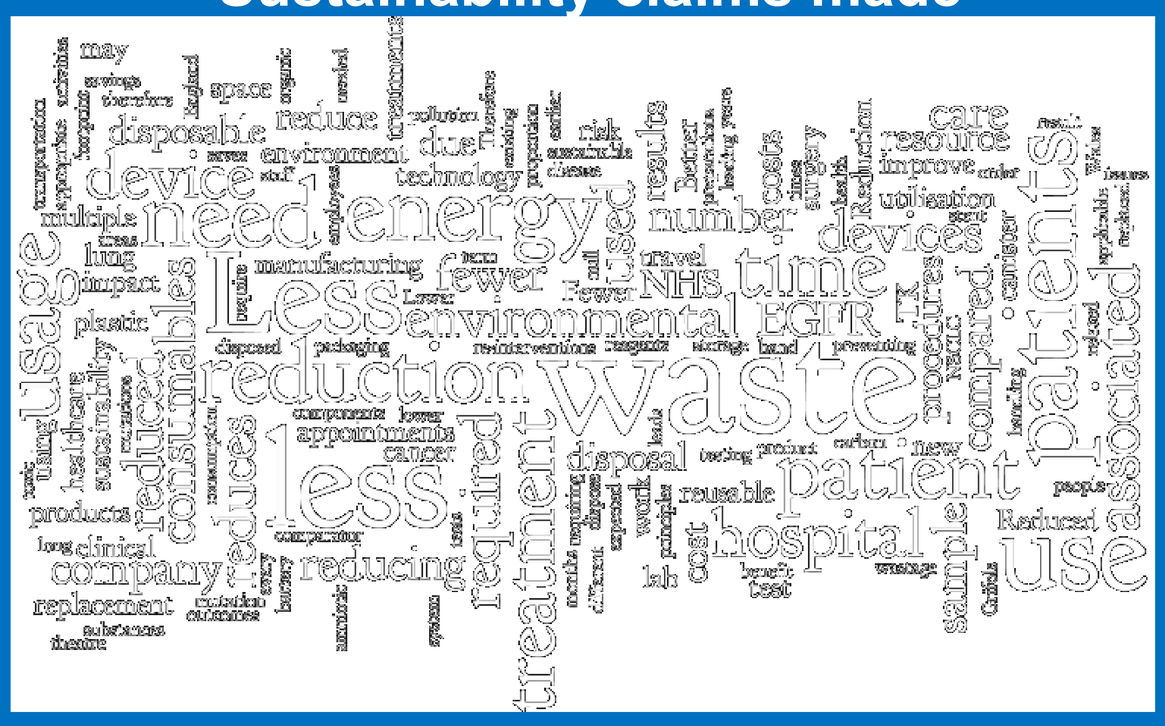
Example: *greener asthma inhalers*[2]

- NICE have developed a new patient decision aid, highlighting that some inhalers have a higher carbon footprint than others
- Many patients are able to achieve same benefit from dry powder inhalers (DPIs) as they would with metered dose inhalers (MDIs) containing GHGs
- The carbon footprint of an MDI is 500g CO_2eq per dose, compared to 20g in DPIs
- It also advises all used inhalers to be returned to local pharmacies for recycling or environmentally safe disposal

Conclusions

- Evidence to back up company sustainability claims is lacking
- There is little to no evidence on environmental sustainability or lifecycle analysis of medical technologies
- Methods to undertake environmental audits have been developed but are not widely used in healthcare at present
- We require data to quantify the environmental impact of medical devices e.g. packaging, clinical use, transport, storage requirements, disposal of single-use or sterilisation of reusable devices

Sustainability claims made



Ongoing Future work

- Incorporating a sustainability question into the HealthTech Connect company notification system. This will ask companies to list any sustainability benefits and to submit any evidence that supports these claims
- Adding a sustainability section into MIBs, where we list company claimed benefits and evaluate any evidence which is submitted. If no evidence is submitted, this will be stated.

References

[2]NICE encourages use of greener asthma inhalers. April 2019. Available at: https://www.nice.org.uk/news/article/nice-encourages-use-of-greener-asthma-inhalers

Faye Sheldon, **Health Technology Assessment Analyst,** Liz Islam, **Project Manager,** Paul Dimmock, **Health Technology Assessment Adviser**
National Institute for Health and Care Excellence
Email: medtech@nice.org.uk
Telephone: +44 (0)300 323 0140

www.nice.org.uk