

Coolsticks in the North East

Sustainable alternative to ethyl chloride spray

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Background

Ethyl chloride is a topical anaesthetic spray, more commonly used to check regional/spinal anaesthesia. It's a green house gas, remaining in the atmosphere one to two months.

One can has a carbon footprint of 16.28KgCO₂e and costs £17.94

In Northumbria we used 630 cans 2019/20 in theatres.

Manufacture occurs in Czech Republic and is then transported to the UK and distributed, adding further carbon footprint

Aims

Introduce a sustainable alternative to ethyl chloride.

The Green Ward Project had utilised a cool metal wand in a similar project and developed a Coolstick with Theophany Ltd. Coolsticks are easily cleaned between use so are reusable.
They are stored in a normal domestic fridge

Discussion with Infection control led to approval of use.

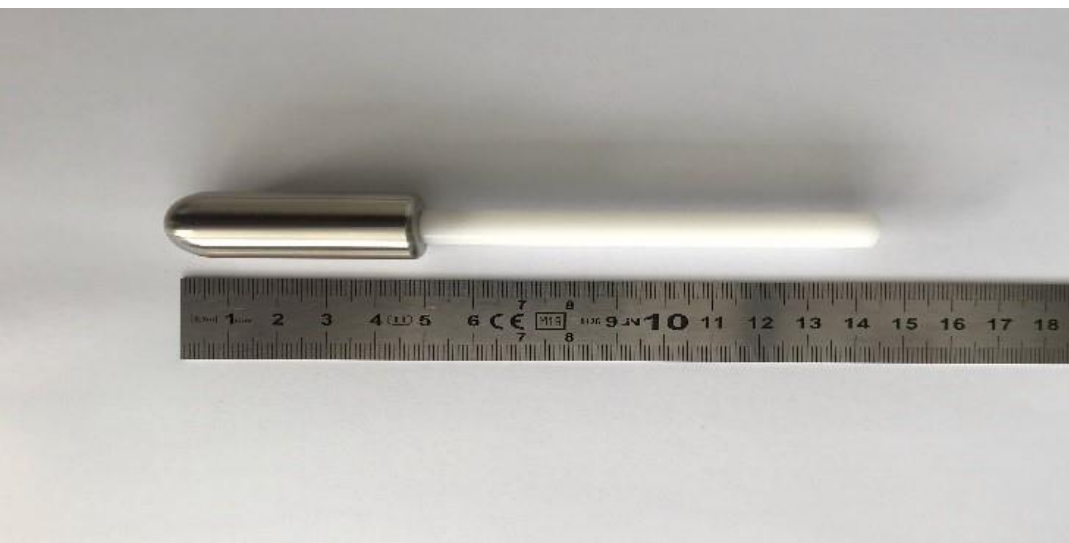
Methods

We trialled use in elective LSCS initially with good feedback before roll out across theatres and labour ward .

We have since worked with pharmacy to tail off theatre stock and orders.



Carbon Footprint	KgCO ₂ e	Cost
Ethyl Chloride spray	16.28 per can (10,256.4 for 630 cans)	£17.94 per can
Transport 1868km from manufacture	16.44 for 630 cans	
Total	10,272.84	£11,302.20 (630 cans ordered 2019/2020)



Carbon Footprint	KgCo ₂ e	Cost
Coolsticks	0.16 for 16 sets	£60 per set
Transport from manufacture	0.75 for 16 sets	16 sets required
Total	0.91	£960

Outcomes

Saving of:

- Over £10000 per year for the trust
- 10.2TCO₂e

Service evaluation in collaboration with Sunderland and South Tyneside Trust was performed. A retrospective notes review of 358 elective LSCS pre Coolstick and 252 post Coolstick was performed, demonstrating at least equality, if not marginal benefits with Coolsticks.

Conclusions

We feel Coolsticks are a safe and sustainable alternative to ethyl chloride

	Pre Coolstick (n=358)	Post Coolstick (n=252)
Rate of GA conversion	1.12%	0%
Rate of supplementary Analgesia	3.63%	3.14%

References

Green Ward Project WHO NEEDS SPRAY ANYWAY? - RECOVERY TEAM <https://www.rbch.nhs.uk/index.php?id=3048>
Theo Labuschagne, THEOPHANY LTD