



A really Cool Stick: The new financially viable and environmentally- friendly alternative in modern obstetric anaesthesia

Nyree Jackson¹, Victoria Millington¹, Tina Vaz¹, Yoshimi Ito¹

Correspondence: Dr Nyree Jackson, New Cross Hospital, The Royal Wolverhampton NHS Trust, UK. Email: nyreemay@icloud.com

Abstract

Background: Ethyl chloride spray is the mainstay of assessment of neuraxial blockade in obstetric anaesthesia, but its use is controversial when more sustainable, greener and potentially cheaper alternatives are available, such as the CoolSticks.

Methodology: This project combined a literature review, user satisfaction survey, and a quarterly review of financial implications after CoolSticks were used to assess neuraxial blockade instead of Ethyl chloride spray. During the period of January to April 2024, CoolSticks were used in obstetric theatres instead of Ethyl Chloride spray in a single hospital.

Results: During the trial period, savings of 1676.84 KgCO₂e and £2095.02 were made compared with the previous quarter (excluding the one-off purchase cost of the CoolSticks). Our user satisfaction survey showed 97% of obstetric anaesthetists were confident with the use of the CoolSticks for assessing dermatomal level, with a 100% of patients accepting its use clinically.

Conclusion: We established that CoolSticks were superior to Ethyl chloride spray in both cost effectiveness and user satisfaction, whilst removing the health risks associated with the use of the spray. Due to the success of the CoolSticks, it is now used as the first line method of assessing neuraxial block at our obstetric unit. Our goal is now to roll out their use of trust-wide, including areas such as orthopaedics, to help reduced anaesthetic-related environmental pollution whilst also saving funds.

1. New Cross Hospital, The Royal Wolverhampton NHS Trust, UK

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