Current neuraxial techniques for labour analgesia in the UK: a survey of OAA members

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Introduction

Neuraxial labour analgesia can be delivered via labour epidural analgesia (LEA), combined spinal-epidural (CSE), or dural puncture epidural (DPE) techniques (1). While CSE may offer faster onset and improved block quality compared with LEA, DPE has been proposed as an alternative combining some advantages of CSE while avoiding full intrathecal dosing (2). Despite emerging evidence, real-world adoption of DPE in the UK remains unclear. This survey aimed to characterise current UK practice, including first line neuraxial analgesia, CSE technical preferences, and DPE awareness and uptake.

Methods

A cross-sectional survey was distributed electronically to 1,906 UK-based members of the Obstetric Anaesthetists' Association (OAA) between June and July 2025. The nine-item survey collected demographics, routine neuraxial practice, technical aspects of CSE, and DPE familiarity and use, with three questions allowing free-text responses. Responses were anonymised, analysed descriptively, and thematic analysis was performed on free-text data.

Results

A total of 338 clinicians responded (18% response rate), predominantly consultants (76%). Most respondents routinely provide LEA (93.2%), with CSE used less frequently (6.5%) and DPE rarely used (0.3%). Among those performing CSE, needle-through-needle (NTN) technique was slightly more common than separate-needle technique (56.6% vs 43.4%). Spinal needle gauge selection varied, with 25G and 27G most commonly used, and intrathecal regimens typically comprised low-dose local anaesthetic–opioid mixtures (0.1% bupivacaine/levobupivacaine with 2 µg/mL fentanyl). Awareness of DPE was high (93.7%), yet 65% would not consider its use. Thematic analysis highlighted recurring considerations: safety concerns, preference for existing techniques, limited robust evidence. Among the few using DPE (4%), application was situational, including advanced labour, high BMI, or unilateral block.

Discussion

LEA remains the dominant method of labour analgesia in the UK, with CSE adopted selectively and DPE rarely implemented despite high awareness. Barriers to DPE uptake include perceived risks, limited demonstrated advantage over CSE, and lack of high-quality evidence and consensus guidelines. These findings provide a contemporary snapshot of UK practice, highlight areas of variability in neuraxial labour analgesia, and underscore the prevailing caution and limited adoption of DPE among clinicians.

References:

1. Toledano RD, Leffert L. What's New in Neuraxial Labor Analgesia. Curr Anesthesiol Rep. 2021;11(3):340–7.
2. Segal S, Pan PH. Dural Puncture Epidural for Labor Analgesia: Is It Really an Improvement over Conventional Labor Epidural Analgesia? Anesthesiology. 2022 May 1;136(5):667–9.

Acknowledgements:

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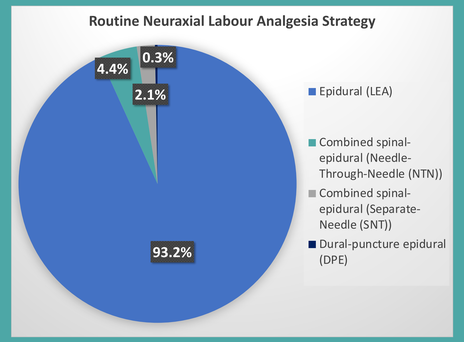

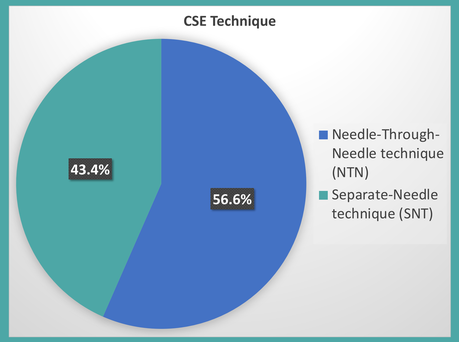

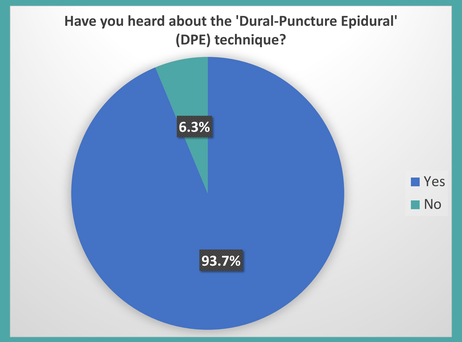

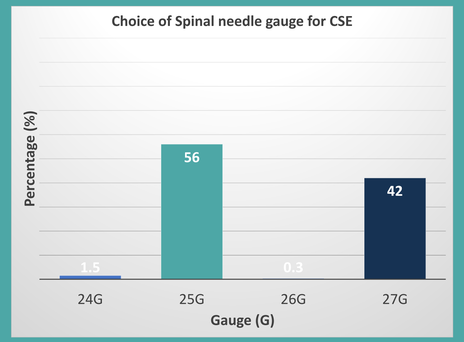

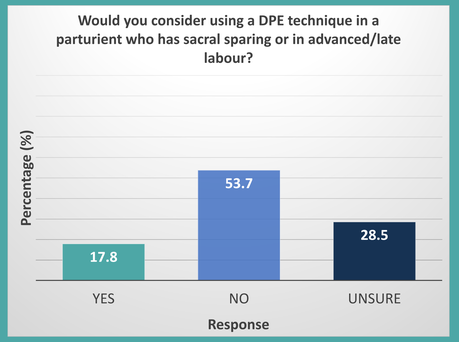

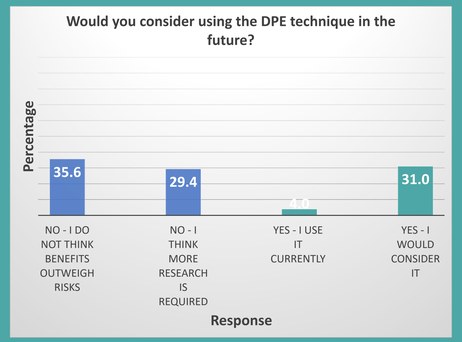

Themes	Codes	Representative Responses
Safety/Risk Concerns	PDPH, Dural puncture risk Chronic hypotension	"Concern about PDPH" "Concern about puncturing the dura routinely" "Potentially slightly hastened onset not worth the risks" "Why add the additional risk of a known dural puncture" "Increased risk of meningitis" "Questionable technique" "Unreliable spread of drug"
Perceived lack of benefit/clinical need	No advantage over CSE	"Don't see the point" "No advantage in late labour" "Not convinced of benefit"
Preference for existing techniques	CSE or LEA preferred	"CSE is better" "Prefer CSE" "If you're going to puncture the dura then might as well deliver drug into it" "Considered it in a woman with 2 labour epidurals with inadequate blocks but did a CSE instead"
Knowledge/evidence	Need more information, unfamiliar. Too much research already	"Don't know enough about it" "Need more information regarding safety and efficacy" "Need to be more familiar with the research evidence" "Researched to death" "Unfamiliar with technique"
Situational/Selective Use	Use in advanced labour, unilateral block after failed epidurals	"Use it in advanced labour" "Use it in patients who have a unilateral block and are in early labour" "Used it on patients with high BMI" "Quicker onset than epidural"
Practical/Departmental Factors	Adoption depends on local practise and consensus guidelines from OAA	"What is the consensus from the OA?" "If I was trained in it and it was accepted practise in the department"

Thematic analysis of free-text responses to the question: "Would you consider using the DPE technique in the future?"