Labour Epidural Analgesia in Scotland: A Survey of Current Practice

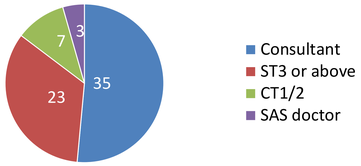
L Halliday, R Kearns
School of Medicine, University of Glasgow, UK

Introduction: Epidural is the gold standard for analgesia in labour[1]. Despite widespread use there is no standardised regime for establishing and maintaining analgesia. We aim to characterise epidural regimes used in Scottish maternity units.

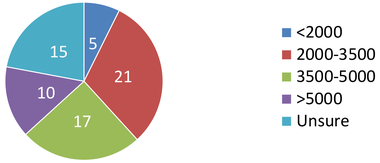
Methods: A survey was created using Google forms and sent to all anaesthetic departments in Scotland. Ethical approval was not required.

Results: 68 responses were received, with a mixture of consultants, registrars and SAS doctors. Departments varied in size, from <2000 to >5000 deliveries per year. The departmental annual epidural rate varied from 20-50%.

What grade of anaesthetist are you?



Approximately how many deliveries per year in your unit?



Results continued:

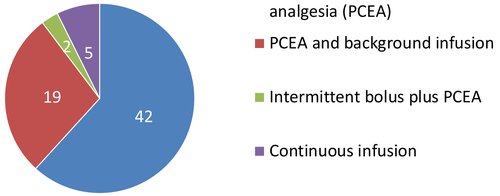
A test dose was routinely used by 63/68 (92.6%). 0.25% L-bupivacaine (29, 42.6%), was the most commonly used agent, and a total of 8 different agents were reported (table 1). L-bupivacaine with fentanyl was the most common agent to both establish and maintain analgesia (table 1). All respondents co-administered fentanyl for maintenance, though the concentration varied (5-20mcg/ml). Nine (13.2%) used clonidine as an epidural adjunct and 59 (86.8%) did not use any adjuvants other than opioids. Patient controlled epidural analgesia (PCEA) was used in >92%.

For first-line management of a low block in a healthy primiparous woman with a labour epidural, 11 different responses were received; 26 (38.3%) used up to 10ml 0.1-0.125% L-bupivacaine, and 24 (35.3%) used up to 10ml 0.25% L-bupivacaine. Three (4.4%) respondents used up to 50mcg fentanyl, 2 (3%) used a combination of L-bupivacaine and clonidine, and 1 (1.5%) used up to 75mcg clonidine. The remainder used combinations of L-bupivacaine and fentanyl.

		Number of responses (%)
Test Dose	0.25% L-bupivacaine	29 (42.6%)
	2% lidocaine	12 (17.6 %)
	0.1% L-bupivacaine	11 (16.2%)
	0.125% L-bupivacaine	7 (10.3%)
	0.5% L-bupivacaine	6 (8.9%)
	0.125% bupivacaine	1 (1.5%)
	0.25% bupivacaine	1 (1.5%)
	0.5% bupivacaine	1 (1.5%)
Initial bolus solution	L-bupivacaine + fentanyl	48 (70.6%)
	L-bupivacaine	13 (19.1%)
	Bupivacaine + fentanyl	4 (5.9%)
	Bupivacaine	2 (2.9%)
	Other	1 (1.5%)
Maintenance solution	0.1% L-bupivacaine + fentanyl	42 (61.8%)
	0.125% L-bupivacaine + fentanyl	20 (29.4%)
	0.0625% bupivacaine + fentanyl	3 (4.4%)
	0.1% bupivacaine + fentanyl	2 (2.9%)
	0.125% bupivacaine + fentanyl	1 (1.5%)

Table 1 – choice of local anaesthetic agent

What method of maintenance do you use for epidural analgesia?



Conclusions: Despite widespread use, there is no nationally agreed technique for labour epidural analgesia in Scotland. There is considerable variation in use of test doses of local anaesthetic, as well as the choice of agent and concentration for initiation and maintenance solutions, and method of maintenance delivery. L-bupivacaine and PCEA have increased in popularity since 2013[2]. There is no national procedure for the management of a low block in healthy primiparous women. Further work is required to devise recommendations for the optimal technique to increase patient satisfaction and safety.

References

1. World Health Organisation. WHO recommendation on intrapartum care for a positive childbirth experience, 2018. https://apps.who.int/iris/bitstream/handle/10665/272447/WHO-RHR-18.12eng.pdf?sequence=1. Accessed February 4, 2022.
2. R Vedagiri, Sai GR, C Johnstone. Survey of obstetric epidural anaesthetic practises in Scotland. International Journal of Obstetric Anesthesia. 2013:p43

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