



Analgesia in the Post-Natal Period after GA Caesarean Section

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Introduction

Providing general anaesthesia (GA) in place of neuraxial blockade for caesarean section is a less frequent occurrence often reserved for emergencies¹. Determining a post-operative analgesia regime may be difficult. Patient controlled analgesia (PCA) allows a titratable means of pain relief. However, it requires continuous connection to an intravenous delivery system, which may delay mobilisation. PCA does not routinely provide superior analgesia². It may also be associated with increased side effects³.

Aims

Primary Outcome

- ✓ Review the prescription and utilisation of PCA post-GA section to determine whether their routine use is beneficial

Secondary Outcomes

- ✓ Investigate the current use and impact of transversus abdominis plane (TAP) blocks for post-operative analgesia
- ✓ Determine and compare routine practice in other obstetric centres

Methods

Reviewing Current Practice: PCA and TAP Blocks

Caldicott Approval was obtained prior to commencing. Patients who received a GA for operative delivery in NHS Tayside between January and July 2024 were identified, and data was extracted from their records. Extracted data included duration and use of PCA, as well as if a TAP block had been administered. Anecdotal senior charge midwifery opinion was obtained through informal discussion.

Determining National Practice

Surveys were distributed to other centres in Scotland regarding their routine analgesia practice post-GA section.

Results

General Overview

22 patients were identified, of whom 17 were included in the study. Exclusion criteria included absent data (four) and pre-existing chronic pain (one). Mean maternal age at birth was 31.4 years, and mean gestational age was 36.9 weeks. The mean estimated blood loss (EBL) was 797ml.

Parity	P0	P1	P2	P3	P4	P5
No.	12	2	1	0	1	1

GA was given for a variety of category of caesarean section:

Category	Cat 1	Cat 2	Cat 3	Cat 4
No.	10	6	0	1

Morphine PCA Usage

Ten patients were prescribed a morphine PCA (1mg bolus, 5-minute lockout). No patients who were prescribed oral analgesia were stepped up to PCA.

Mean Use
3.9 mg

Morphine Discarded
> 92%

Mean Duration
~5 hours

TAP Blocks

13 patients received TAP blocks, of whom nine were prescribed PCA. Only one patient who was prescribed PCA did not receive a TAP block, and meaningful comparison could not be made.

Senior Midwifery Opinion

Discussions with midwives suggests that most PCAs go unused. They also suggest that they delay mobilisation; they worry whether this can impact on time bonding with the newborn, particularly if the child is not in the same unit.

Current Practice Nationally

Responses were obtained from 10 centres across Scotland. Eight use a combination of oral opiates and regional techniques; two use PCA routinely post-GA caesarean section.

Is PCA Routinely Prescribed?



Discussion

PCA doses were equivalent to oral opiate formulations that would otherwise be prescribed routinely; this appears to confirm that PCA is not usually superior to other analgesic modalities³. Anecdotally, they largely go unused and may impact on mobilisation and maternal bonding. Most centres in Scotland do not routinely prescribe PCA post-operatively.

Do TAP Blocks Impact PCA Usage?

Due to limited sample size, meaningful comparison could not be made. However, maximal PCA usage among those who received TAP blocks was 13mg. This could be achieved with intravenous opiate prior to wakeup / in recovery and ensuring prescription of enteral alternatives.

Special Considerations

One patient with chronic pain was excluded due to non-representative requirements. They benefited from specialist input and a ketamine infusion.

Limitations

A lower sample size and lack of additional data (such as pain scoring post-operatively) limit the extent to which conclusions may be drawn.

Future Practice

Future study would be beneficial to expand the evidence base comparing PCA usage and alternative preparations. However, a **combination of regional techniques** and **multi-modal enteral analgesia** should be sufficient in most cases during the post-operative period. Departmental training regarding the delivery of TAP blocks would likely be beneficial for patients.

References

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