

An audit on indications for remifentanyl PCA for labour analgesia leading to a quality improvement initiative – looking back to pay it forward K Brosnan, R Kearsley



Introduction

- In our institution, remifentanyl PCA is reserved for those in whom labour epidural analgesia is contraindicated or placement has provided inadequate analgesia.
- For relative contraindications, further investigations or referrals may subsequently permit neuraxial analgesia in future pregnancies.
- Providing patients with this information is key to optimising their care.

Methods

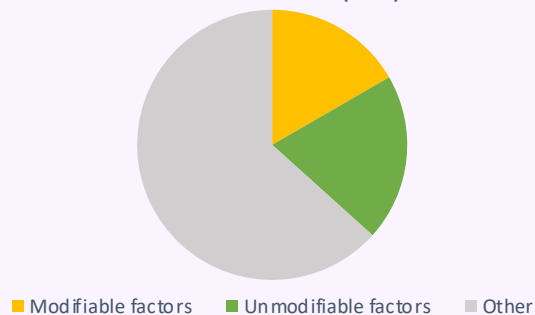
- A review was conducted of remifentanyl PCA use during the period 01/11/21-01/11/22.
- For each case, the indication for remifentanyl PCA use was documented.
- For each case in which epidural catheter placement was contraindicated, an assessment was made on whether any possible modifiable factors existed.
- We defined modifiable factors as any investigation or MDT input which may allow for neuraxial techniques in future pregnancies.

Results

30 patients availed of remifentanyl PCA for labour analgesia in the 12-month period.

Epidural catheter placement was contraindicated in 11 cases (37%).

Modifiable factors were identified in 5 of the 11 cases.
Remifentanyl PCA use (n=30)



Modifiable factors identified

- 1) Bleeding disorder of unknown aetiology – haematology consultation records not available
- 2) Spina bifida occulta – MRI Spine results and images not available
- 3) Neurofibromatosis type 1 with known paraspinal lesion – Awaiting repeat MRI to decide on suitability for neuraxial analgesia
- 4) Clinical features of spina bifida occulta detected in labour
- 5) Clinical features of spina bifida occulta detected in labour

Change implementation

Alterations were subsequently made to our remifentanyl PCA proforma document to include the following questions:

- ☐ Is there any modifiable factor which may allow neuraxial techniques in future pregnancies?
- ☐ If yes, has the patient been informed?
- ☐ If yes, has the patient been advised on referral to the early pregnancy anaesthesia clinic in future pregnancies?

Discussion

- Epidural catheter placement remains a cornerstone of labour analgesia.
- Patient controlled analgesia with remifentanyl is not equivalent to epidural analgesia with respect to scores on satisfaction with pain relief and can result in poor labour analgesia.(1)
- Significant failures of labour analgesia merit further follow-up.(2)
- In this audit, we identified that many of our patients with contraindications to epidural catheter placement had modifiable factors, which would allow for potential epidural analgesia in future pregnancies.
- Based on these findings, we implemented a quality improvement project which has potential significant benefits, extending the choice of neuraxial analgesia and anaesthesia for women in future pregnancies.

References

1. Freeman LM, Bloemenkamp KW, Franssen MT, Papadonitsi DN, Hajenius PJ, Hollmann MW, et al. Patient controlled analgesia with remifentanyl versus epidural analgesia in labour: randomised multicentre equivalence trial. *BMJ*. 2015;350:h846.
2. Review. IM. Ockenden report – Final: Findings, conclusions, and essential actions from the independent review of maternity services at the Shrewsbury and Telford Hospital NHS Trust (HC 1219). 2022.