

# Evaluation of adequacy of spinal anaesthesia in comparison to epidural on post-operative analgesia after major colorectal and abdominal wall surgeries.

L Partridge, L Guscoth, I Abousharkh, S Ashok  
Croydon Health Services NHS Trust

## INTRODUCTION

Drink, Eat and Mobilise (DrEaM) within 24 hours after surgery reduces perioperative complications and post-operative hospital length of stay (1). Sixty nine percentage of eligible patients at Croydon Health Services DrEaM.

Epidurals provide excellent analgesia after surgery, reduces opioid requirements, complications and length of hospital stay and improves patient experience (2,3).

However, they are associated with complications with around 30% failing to provide adequate analgesia (4). We observed high failure rates with inadequate analgesia and increased incidence of side effects in our epidural analgesia cohort of patients undergoing major abdominal surgery.

## METHODS

The aim of this service evaluation was to understand the impact of a decision to move away from epidural to a multimodal approach with a single shot spinal anaesthesia as the principal element of analgesia on DrEaMing within 24 hours after surgery.

The study population included patients undergoing major colorectal surgery or abdominal wall reconstruction surgery. Institutional approval was achieved for service evaluation.

Patient electronic records were retrospectively analysed to collect demographic data, details of surgery, analgesic techniques, adequacy of post-operative analgesia and length of hospital stay for all eligible patients admitted to our Surgical Enhanced Care Unit over a period of 13 months.

### References:

1. <http://www.pqip.org.uk/>
2. Miskovic A, et al. Br J Anaesth. 2017;118:317-34.
3. Verbree-Willemsen L, et al.. Eur J Prev Cardiol. 2019;26:59 -67.
4. NAP3. Br J Anaesth. 2009 Feb;102(2):179-90.

## RESULTS

Sixty-nine out of 86 eligible patients with complete data set were analysed. Thirty one patients had epidural, 32 patients had spinal anaesthesia, and six patients had neither.

There was no significant difference in epidural v non-epidural and epidural v spinal in drinking post-operatively. Compliance with eating was not analysed due to variation in surgical post-operative instructions.

Table 1. Baseline characteristics

	Epidural	Non-epidural
Gender: Male n(%)	n=31 16(52%)	n=38 21(55%)
Female n(%)	15(48%)	17(45%)
Open surgery	n=28 6 (21%)	n=34 5 (15%)

Table 2. Statistical analysis comparing epidural v non-epidural groups

	Epidural n=28	Non-epidural n=34	P value
Mobilising at 24h	11	21	0.078
Mobilising at 24h (Male)	8	8	0.393
Mobilising at 24 h (Female)	3	13	0.0004
Length of Stay median (IQR)	8 (4)	6 (3)	0.11
VAS reported score >3	7	1	0.033

## RESULTS

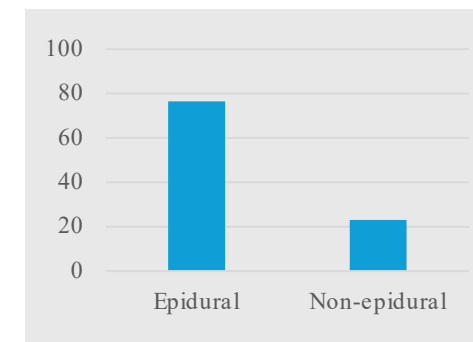


Chart 1. % patients citing pain as a reason for not mobilising.

## CONCLUSION

This evaluation shows reduced mobilisation at 24 hours in patients with an epidural compared to non-epidural.

Patients in the single-shot spinal group had reduced complaints of pain with VAS score < 3 on day 1 post-operatively. Despite having an epidural, 55% of patients still required a PCA post operatively.

This data supports our currently recommended approach of a single shot spinal anaesthetic in patients with major colorectal and abdominal wall surgery to facilitate earlier mobilising and improve postoperative pain control.

Limitations of this evaluation includes incomplete data sets and lack of full compliance in data recording. We also did not compare the amount of opioid or alternative analgesia used.