

Rectus Sheath Catheters Following Intra-Abdominal Surgery

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Aim To audit the use of rectus sheath catheters (RSC) for intra-abdominal surgery at Nelson Hospital, including adequacy of analgesia, adverse effects and patient satisfaction.

Method All RSC were placed intra-operatively by the surgeon at the completion of surgery according to the description published previously (Cornish & Deacon 2007). Nelson Hospital uses a bolus regime of 10-20ml bupivacaine 0.25% with adrenaline 1:400,000, administered to each RSC (i.e. a total of 20-40ml) at the completion of surgery, and subsequently by nursing staff on the surgical wards every four hours as required. Acute Pain Service records were examined for the calendar years 2008 and 2009.

Results

184 patients were identified as having RSC placed. The average patient age was 61.5 years (range 8-92 years), with females making up 55% of cases. Surgical specialty mix included General Surgery (91%), Gynaecology (5%), Urology (2%) and Vascular Surgery (2%).

Data was available for a total of 368 bolus doses administered over the first four post-operative days. Mean numerical pain score prior to top-up was 3.92; mean pain score following top-up was 1.26. Patients received an average of 5.09 bolus doses in each 24-hour period. 83% of patients were concurrently prescribed a PCA and 2% had an epidural.

There were no recorded adverse cardiorespiratory effects or wound infections attributed to RSC top-up, and no recorded cases of local anaesthetic toxicity.

Over a 12-month period, 77 patients were asked to rate their overall satisfaction with the RSC on a Likert scale (1-5). The mean patient satisfaction score was 4.9.

Conclusion

Bolus regime rectus sheath catheters provide effective post-operative analgesia with minimal adverse events and excellent patient satisfaction.

A further prospective study of RSC efficacy would be justified.