TU8.6 Pharmacological management of post-operative pain following appendicectomy: a meta-analysis

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Introduction: Appendicectomy is an increasingly common procedure internationally, and is the most frequent emergency surgery performed in the UK. Post-operative pain is common after surgery, if poorly controlled it can cause many negative outcomes for patients. Despite the large number of patients that undergo appendicectomy and the potentially severe outcomes of post-operative pain, there is no clear guidance on how best to control pain following appendicectomy. The aim of this meta-analysis is to compare the efficacy of different modalities of analgesics following appendicectomy, to identify which is best at controlling post-operative pain.

Methods: A literature search was conducted across online libraries for trials assessing pain scores after appendicectomy with different analgesics administered. These were grouped based off modality. Using the data in these trials a forest plot was created for each modality with an effect estimate and confidence intervals calculated for each trial.

Results: 6 studies investigated nerve-blocks; an estimated effect of -1.01 with CIs of -1.39 to -0.4 was calculated. 3 studies investigated NSAIDs; an estimated effect of -0.46 with CIs of -0.70 to -0.23 was calculated. 3 studies investigated local anaesthetics; an estimated effect of -0.83 with CIs of -1.91 to 0.26 was calculated. 1 study investigated opiates with an estimated effect of -0.82 with CIs of -1.47 to -0.17 was calculated.

Conclusion: Nerve-blocks were the most effective modality of analgesic followed by NSAIDs. No clinically significant effect was proved for local anaesthetics as the CIs crossed the null hypothesis. Opiates were not compared due to insufficient data.