LAPAROSCOPIC COLORECTAL SURGERY

SUMMARY RECOMMENDATIONS

Notes on PROSPECT recommendations

PROSPECT provides clinicians with supporting arguments for and against the use of various interventions in postoperative pain based on published evidence and expert opinion. Clinicians must make judgements based upon the clinical circumstances and local regulations. At all times, local prescribing information for the drugs referred to must be consulted.

Pain after laparoscopic colorectal surgery and aims of the PROSPECT review

Laparoscopic resection has become the standard surgical technique for treatment of colorectal cancer, associated with less postoperative pain and shorter hospital stays than open surgical techniques (Millo 2013).

The aim of the current review (Lirk 2024) was to evaluate the current literature on postoperative pain management following laparoscopic colorectal surgery and update the previous procedure-specific pain management recommendations (Joshi 2012).

The unique PROSPECT methodology is available at https://esraeurope.org/prospect-methodology/. The PROSPECT Working Group considered study quality, clinical relevance of trial design (including critical evaluation of the baseline pain treatment), and a comprehensive risk-benefit assessment of each analgesic intervention to determine its relevance in current peri-operative care.

Literature databases were searched up to January 2022, taking into account the previously published guidelines (Joshi 2012).

Summary of recommendations and key evidence

Summary of recommendations and key evidence for pain management in patients undergoing laparoscopic colorectal surgery
Systemic analgesia
Paracetamol and NSAIDs/COX-2 specific inhibitors are recommended as basic analgesia for colonic surgery; paracetamol is recommended for rectal surgery; these should be administered pre-operatively or intra-operatively and continued postoperatively (unless contraindicated) • The previous PROSPECT recommendation for the administration of NSAIDs or COX-2-specific inhibitors (Joshi 2012) is strengthened by an additional study showing evidence of efficacy (Zhang 2021) • The PROSPECT group voted 8:1 in favour of recommending NSAIDs/COX-2 specific inhibitors for colonic, but not for rectal surgery, given concern over potential anastomotic leakage (Holte 2009; Bhangu 2014; Iversen 2018; Modasi 2019; Chen 2022; Chapman 2019)
Intravenous lidocaine may be considered when basic analgesia cannot be provided • Because no consensus could be reached (8 votes in favour, 6 votes against), no recommendation could be made for use of intravenous lidocaine as a first-line treatment. However, intravenous lidocaine may be considered when basic analgesia cannot be provided • Prior to the vote, the PROSPECT Working Group discussed the previous PROSPECT recommendation for intravenous lidocaine (Joshi 2012), the ambivalent nature of studies published since (Andjelković 2018; Ahn 2015; Tikuišis 2014; Elhafz 2012; Kim 2014; Dewinter 2018; Beaussier 2018), and the cautionary findings of a recent meta-analysis (Weibel 2018) • Several review articles have cautioned about the use of intravenous lidocaine infusion with regional analgesic techniques due to concerns of local anaesthetic systemic toxicity (Foo 2021; Pandit 2021; Shanthanna 2021)
Local and regional analgesia
Surgical port site wound infiltration is recommended • Despite inconsistent evidence (Beaussier 2018; Barr 2015; Rashid 2017; Ren 2022; Pedrazzani 2021; Moore 2012; Fustran 2015), wound infiltration is recommended because of its simplicity and low cost

• Intrathecal morphine: no consensus was reached • Because no consensus could be reached (7 votes in favour, 8 votes against), no recommendation could be made for use of intrathecal morphine • Prior to the vote, the PROSPECT Working Group members discussed the balance of risks (the invasive nature of the additional spinal puncture in patients undergoing general anaesthetic and the potential for side effects such as pruritus, respiratory depression, urinary retention, and nausea/vomiting [Raffaeli 2006; Koning 2020]) and benefits (analgesic efficacy [Levy 2011; Wongyingsinn 2012; Day 2015; Koning 2018], perceived simplicity, cost-effectiveness, and widespread availability) of intrathecal morphine • Intrathecal morphine was not recommended previously by PROSPECT based on limited evidence of benefit and the potential for side-effects (Joshi 2012)
Opioids should be reserved for rescue analgesia

COX, cyclooxygenase; NSAID, non-steroidal anti-inflammatory drug.

Interventions that are NOT recommended

Interventions that are not recommended for pain management in patients undergoing laparoscopic colorectal surgery.

Intervention	Reason for not recommending
Intraperitoneal local anaesthetics	Inconsistent evidence; may be used when basic analgesia or intravenous lidocaine cannot be provided
Deep neuromuscular blockade	Limited procedure-specific evidence
Epidural analgesia	Comprehensive risk-benefit assessment
Truncal blocks	Inconsistent procedure-specific evidence
Specific surgical techniques	Lack of procedure-specific evidence

Overall PROSPECT recommendations table

Overall recommendations for pain management in patients undergoing laparoscopic colorectal surgery	
Paracetamol and NSAIDs/COX-2 specific inhibitors for colonic surgery; paracetamol for rectal surgery Administered pre-operatively or intra-operatively, and continued postoperatively (if no contraindications)	• Recommended
Surgical port site wound infiltration	• Recommended
Rescue opioids	• Recommended
Intravenous lidocaine	• No consensus was reached; may be used when basic analgesia cannot be provided
Spinal morphine	• No consensus was reached

COX, cyclooxygenase; NSAID, non-steroidal anti-inflammatory drug.

PROSPECT publication

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PROcedure-SPECific postoperative pain management guideline for laparoscopic colorectal surgery: A systematic review with recommendations for postoperative pain management

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PROSPECT recommendations for laparoscopic colorectal surgery – infographic