

LAPAROSCOPIC SLEEVE GASTRECTOMY

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.

Grades of recommendation (GoR) and levels of evidence (LoE)

GoRs are assigned according to the overall LoE on which the recommendations are based, which is determined by the quality and source of evidence: [Relationship between quality and source of evidence, levels of evidence and grades of recommendation](#).

Notes on pain after laparoscopic sleeve gastrectomy (LSG)

The laparoscopic approach for sleeve gastrectomy is considered to be associated with reduced postoperative pain and morbidity as well as quicker recovery and shorter hospital stay compared with open surgery.

Summary recommendations

Recommended: Pre- and intra-operative interventions

- Unless otherwise stated, ‘pre-operative’ refers to interventions applied before surgical incision and ‘intra-operative’ refers to interventions applied after incision and before wound closure
- Analgesics should be administered at the appropriate time (pre- or intra-operatively) to provide sufficient analgesia in the early recovery period

<p>Paracetamol and NSAID/COX-2-selective inhibitors</p>	<ul style="list-style-type: none"> • Peri-operative pain management for LSG is recommended to include paracetamol (Grade A) and, unless contraindicated, an NSAID/COX-2-selective inhibitor (Grade A), administered pre-operatively or intra-operatively and continued into the postoperative period • Although there was limited procedure-specific evidence to support the use of paracetamol and NSAIDs/COX-2-selective inhibitors, the analgesic benefits of these non-opioids are well described. They are considered “basic analgesics”
<p>Single, low dose of IV dexamethasone</p>	<ul style="list-style-type: none"> • A single, low dose of IV dexamethasone is recommended (Grade A) for its ability to decrease analgesic use and act as an anti-emetic (LoE 1) • Although only one procedure-specific study reported on the analgesic effects (LoE 1), the anti-emetic effects of dexamethasone are well established, and it is likely to be of benefit in LSG
<p>Gabapentinoids, when paracetamol and/or NSAID are not possible</p>	<ul style="list-style-type: none"> • Gabapentinoids may be considered with caution when a “basic” analgesic regimen such as paracetamol and NSAID/COX-2-selective inhibitor is not possible (Grade A) • The recommendation is based on evidence of analgesic benefit in procedure-specific studies (LoE 1), but caution is advised as doses in these studies varied substantially and there are concerns that gabapentinoids may increase opioid-induced respiratory depression (Cavalcante 2017), especially in the obese or obstructive sleep apnoea populations (Joshi 2012)
<p>Port-site infiltration may</p>	<ul style="list-style-type: none"> • Even though there is limited procedure-specific evidence, port-site infiltration may be considered (Grade D). Port-

be considered	site infiltration is favoured over TAP blocks as it is a simple and inexpensive approach that provides adequate somatic blockade
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Recommended: Post-operative interventions

- Unless otherwise stated, 'postoperative' refers to interventions applied at or after wound closure
- Analgesics should be administered at the appropriate time (pre- or intra-operatively) to provide sufficient analgesia in the early recovery period

Paracetamol and NSAIDs/COX-2-selective inhibitors	<ul style="list-style-type: none"> • Peri-operative pain management for LSG is recommended to include paracetamol (Grade A) and, unless contraindicated, an NSAID/COX-2-selective inhibitor (Grade A), administered pre-operatively or intra-operatively and continued into the postoperative period • Although there was limited procedure-specific evidence to support the use of paracetamol and NSAIDs/COX-2-selective inhibitors, the analgesic benefits of these non-opioids are well described. They are considered "basic analgesics"
Rescue opioid	<ul style="list-style-type: none"> • Opioids are recommended as rescue analgesia, postoperatively (Grade A) after continuation of paracetamol and unless contraindicated, an NSAID/COX-2-selective inhibitor

<i>Interventions that are <u>NOT recommended</u></i>	
Transversus abdominis plane (TAP) blocks	<ul style="list-style-type: none"> • TAP blocks are not recommended (Grade D) despite the reported analgesic benefits, as the optimal technique is unclear and their use in laparoscopic procedures has been questioned (Kehlet 2015)
Alpha-2 adrenergic agonists	<ul style="list-style-type: none"> • Alpha-2 adrenergic agonists such as dexmedetomidine are not recommended (Grade D) due to limited and inconsistent procedure-specific evidence of analgesic benefit (LoE 4) as well as concerns regarding potential sedative and hypotensive effects
Magnesium sulphate	<ul style="list-style-type: none"> • Magnesium sulphate is not recommended (Grade D) because in the one procedure-specific study, its analgesic efficacy was not evaluated in the context of an optimal multimodal analgesic including paracetamol and NSAIDs, and due to concerns of potentiation of muscle paralysis and increased incidence of residual paralysis (Thevathasan 2017)
Intraperitoneal local anaesthetic instillation	<ul style="list-style-type: none"> • Intraperitoneal local anaesthetic instillation is not recommended (Grade D) as the one procedure-specific study found no analgesic benefit
Single-port approach	<ul style="list-style-type: none"> • The single-port approach is not recommended (Grade B) due to limited evidence with inconsistent results

Overall PROSPECT recommendations

Perioperative pain treatment for laparoscopic sleeve gastrectomy should include, unless contraindicated:

Pre-operative and intra-operative period
<ul style="list-style-type: none"> • Paracetamol (Grade A) • NSAID OR COX-2 selective inhibitor (Grade A) • Single, low dose of IV dexamethasone (Grade A) • Gabapentinoids, when paracetamol and/or NSAID/COX-2 selective inhibitor are not possible (Grade A)
Postoperative period
<ul style="list-style-type: none"> • Paracetamol (Grade A) • NSAID or COX-2 selective inhibitor (Grade A) • Rescue opioid (Grade A)