

HALLUX VALGUS REPAIR 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 hallux valgus repair surgery

Hallux valgus repair is a common orthopaedic surgery, associated with moderate-to-severe postoperative pain that may have a negative impact on recovery ([Korwin-Kochanowska 2020](#); [Gerbershagen 2013](#)). Many pharmacological treatments, anaesthetic strategies and surgical techniques have been investigated to provide the best possible postoperative analgesia.

Aims and methods of the PROSPECT review

This review ([Wust 2025](#)) aimed to assess the available literature and update previous PROSPECT recommendations for optimal pain management after hallux valgus repair surgery ([Korwin-Kochanowska 2020](#)), which were based on data from 56 studies.

The systematic review and formulation of the recommendations were performed using the unique PROSPECT methodology, available at <https://esraeurope.org/prospect-methodology/>. This methodology was first published in [Joshi 2019](#) and updated in [Joshi 2023](#). Literature databases (CENTRAL, CINAHL, EMBASE, MEDLINE and Web of Science) were searched from 1 January 2019 to 19 November 2024 to identify randomised controlled trials and systematic reviews, in English, which investigated analgesic, anaesthetic and surgical interventions and assessed postoperative pain scores (the primary outcome measure). PROSPECT recommendations were updated, based on interpretation of the evidence from included studies, considering the balance of benefits and adverse effects, the use of basic analgesia, and the procedure-specific clinical context.

17 RCTs and seven systematic reviews and meta-analyses met the inclusion criteria.

This review is registered on PROSPERO: CRD420251013056.

Summary of recommendations and key evidence

Summary of recommendations and key evidence for pain management in patients undergoing hallux valgus repair surgery

Systemic pharmacological treatments

Paracetamol combined with an NSAID or COX-2 selective inhibitor, administered pre-operatively or intra-operatively and continued postoperatively.

- Consistent with the PROSPECT methodology ([Joshi 2023](#)), studies that focused exclusively on these basic analgesics were excluded from the review; in the absence of contraindications, basic analgesics should be administered peri-operatively to all patients undergoing surgery.

Dexamethasone (systemic steroids), intra-operatively

- Recent publications have underlined the analgesic value of concomitant dexamethasone with regional analgesic techniques ([Desai 2023](#); [Desai 2021](#)); at an IV dose of 0.1–0.2 mg/kg, dexamethasone prolongs analgesia in the postoperative period by a mean duration of 8 hours in the presence of a regional analgesic technique with long-acting local anaesthetic

Opioid for rescue, postoperatively

- The use of opioids should be reserved for rescue medication, as in the previous PROSPECT recommendations ([Korwin-Kochanowska 2020](#))

Regional anaesthetic and analgesic techniques

Ankle block with single administration of local anaesthetics as first choice

- This is consistent with the previous PROSPECT recommendations ([Korwin-Kochanowska 2020](#)). The updated literature confirms the analgesic effect of an ankle block as a first-choice modality ([Ravanbod 2022](#); [Ozhan 2020](#); [Su 2019](#))

Local anaesthetic wound infiltration as an alternative to ankle block

- The recommendation is based on evidence from the previous PROSPECT review ([Korwin-Kochanowska 2020](#)), and is consistent with the previous recommendation; no new evidence for wound infiltration was identified in the updated literature review

Surgical procedures

Minimally invasive surgery or percutaneous osteotomy

- The recommendation is based on evidence from a meta-analysis ([Ji 2022](#)) and three positive RCTs ([Dragosloveanu 2022](#); [Torrent 2021](#); [Yoon 2024](#)) showing analgesic benefit from use of a minimally invasive approach or percutaneous osteotomy compared with an open osteotomy

COX, cyclo-oxygenase; IV, intravenous; NSAID, non-steroidal anti-inflammatory drug; RCT, randomised controlled trial.

Interventions that are NOT recommended

Analgesic interventions that are not recommended for pain management in patients undergoing hallux valgus repair surgery.

Intervention		Reason for not recommending
Regional anaesthesia	Popliteal sciatic nerve block with local anesthetic and magnesium sulfate	Limited procedure-specific evidence
	Popliteal sciatic nerve block with liposomal bupivacaine	Limited procedure-specific evidence
	Mode of infusion for continuous popliteal sciatic nerve block	Lack of procedure-specific evidence
	Plantar compartment nerve block and fibular nerve block with local anesthetic	Lack of procedure-specific evidence
Surgical techniques	Biodegradable magnesium screws or titanium screws	Lack of procedure-specific evidence
	Ludloff osteotomy guided by pre-operative plan with 3D printed navigation	Lack of procedure-specific evidence
	Piezoelectric tool system with microvibrations for distal linear osteotomy	Lack of procedure-specific evidence
	Topical skin adhesive or nylon sutures for surgical incision closure	Lack of procedure-specific evidence
Other modalities	Dynamic splint (stretch traction) for hallux valgus correction	Lack of procedure-specific evidence
	Virtual reality mask hypnosis prior to surgery	Lack of procedure-specific evidence
	Rigid sole flat shoe (Darco MedSurg) vs reverse camber shoe (Darco OrthoWedge) following surgery	Lack of procedure-specific evidence

Overall PROSPECT recommendations table

Overall recommendations for procedure-specific pain management in patients undergoing hallux valgus repair surgery	
Pharmacological treatments	• Paracetamol combined with an NSAID or COX-2 selective inhibitor administered pre-operatively or intra-operatively and continued postoperatively • Dexamethasone (systemic steroids), intraoperatively • Opioid for rescue postoperatively
Anaesthetic and analgesic strategies	• Ankle block with single administration of local anaesthetics as first choice • Local anaesthetic wound infiltration as an alternative
Surgical procedures	• Minimally invasive surgery or percutaneous osteotomy

COX, cyclo-oxygenase; NSAID, non-steroidal anti-inflammatory drug.

PROSPECT publication

Wust M, Desai N, Joshi GP, Rawal N, Van de Velde M, Moka E, Elmers J, Albrecht E, on behalf of the PROSPECT Working Group of the European Society of Regional Anaesthesia and Pain Therapy (ESRA).

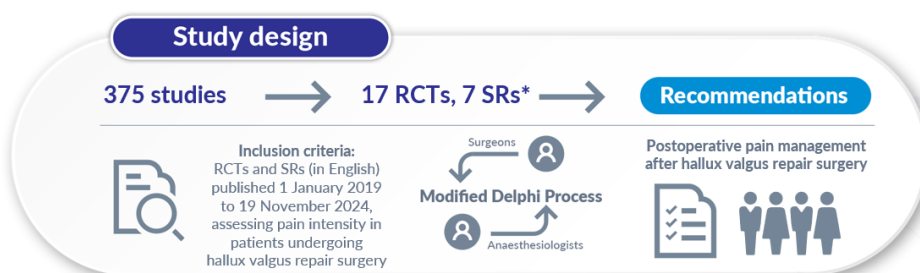
PROSPECT guideline for hallux valgus repair surgery: an updated systematic review and procedure-specific postoperative pain management (PROSPECT) recommendations.

[Eur J Anaesthesiol 2025 Oct 22. doi: 10.1097/EJA.0000000000002302. Online ahead of print.](https://doi.org/10.1097/EJA.0000000000002302)

PROSPECT recommendations for hallux valgus repair surgery – [Infographic](#)

Recommendations for hallux valgus repair surgery

An updated systematic review with recommendations for
postoperative pain management



Systemic (basic) analgesia

Paracetamol combined with an NSAID or COX-2 selective inhibitor, administered pre-operatively or intra-operatively and continued postoperatively.



Systemic steroids

Systemic dexamethasone is recommended, intra-operatively.



Regional analgesia

- Ankle block with single administration of local anaesthetics is recommended as the first-choice regional analgesic technique.
- Local anaesthetic wound infiltration is recommended as an alternative.



Surgical procedure

Minimally invasive surgery or percutaneous osteotomy.



Opioids

Should be reserved for postoperative rescue analgesia.

Wust M, et al. Pain management after hallux valgus repair surgery: an updated systematic review and procedure-specific postoperative pain management (PROSPECT) recommendations. Eur J Anaesthesiol 2025 Oct 22. doi: 10.1097/EJA.0000000000002302. Online ahead of print.

*This systematic review builds on the previous review, which included data from 56 studies.

COX, cyclo-oxygenase; NSAID: non-steroidal anti-inflammatory drug; RCT, randomised controlled trial; SR, systematic review.

