

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.

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 hallux valgus repair surgery

Hallux valgus is a common forefoot deformity characterised by a medial prominence of the first metatarsus head and a valgus deviation of the first toe, with a prevalence of up to 33% in the general population ([Torkki 2001](#)). Hallux valgus repair is a frequently performed orthopaedic surgery in industrialised countries, which is associated with moderate-to-severe postoperative pain that may influence recovery.

The aim of this guideline is to provide clinicians with robust evidence for optimal pain management after hallux valgus repair. There are no previously published formal guidelines specifically for pain management after hallux valgus repair. A systematic review previously assessed the evidence for analgesic interventions following ankle and foot surgery for in- and outpatients, but was not specific to hallux valgus repair ([Wang 2015](#)).

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

Paracetamol and NSAIDs/COX-2-selective inhibitors

- Paracetamol (Grade D) and NSAID (Grade A) or COX-2-specific inhibitor (Grade A) are recommended in the absence of contraindications, started pre- or intra-operatively and continued in the postoperative period.
- Although there is limited procedure-specific evidence for paracetamol, as only one trial investigated analgesic efficacy for hallux valgus specifically, more than 300 patients were included in this study ([Jarde 1997](#)). Also, the PROSPECT methodology considers paracetamol a basic analgesic, with a favourable risk-benefit profile ([Joshi 2019](#)).

Systemic steroids

- Systemic steroids are recommended (Grade A) in the absence of contraindications, administered pre-operatively or just before surgery.
- Although the studies used IM betamethasone and oral dexamethasone, the effects of these drugs are systemic. We recommend IV dexamethasone because it is recommended for PONV prophylaxis ([Gan 2014](#)). Moreover, IV dexamethasone enhances the impact of a regional analgesic technique such as ankle block, or anaesthetic infiltration ([Baeriswyl 2017](#)).

Ankle block

- Ankle block is recommended (Grade A).
- Ankle block is recommended as the first-choice regional analgesic technique and wound infiltration as an alternative (Grade D).
- Only two trials investigated the benefit of an ankle block for this surgery specifically, but they both showed an important effect size ([Kir 2018](#); [Su 2019](#)). Additionally, two trials published over 15 years ago concluded that an anatomic-

	<p>landmark ankle block combined with GA reduced pain scores (Needoff 1995) or increased the time to first pain after forefoot surgery (Clough 2003), when compared with GA alone.</p> <ul style="list-style-type: none"> • Despite only a single trial showing the superiority of the ankle block over wound infiltration of local anaesthetics (Su 2019), ankle block should be favoured as it may allow the surgery to be performed without additional GA or SA (López 2012). Moreover, it also reduces the anaesthesia-related time in the operating theatre, especially if the regional procedure is performed prior to operating room entry. • Additional research is needed to properly compare a sciatic nerve block with an ankle block under ultrasound guidance in a contemporary practice.
<p>Wound infiltration with local anaesthetic</p>	<ul style="list-style-type: none"> • Wound infiltration with single administration of local anaesthetic is recommended (Grade A). • Ankle block is recommended as the first-choice regional analgesic technique and wound infiltration as an alternative (Grade D).

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

- Paracetamol (Grade D) and NSAID (Grade A) or COX-2-specific inhibitor (Grade A) are recommended in the absence of contraindications, started pre- or intra-operatively and continued in the postoperative period.
- Although there is limited procedure-specific evidence for paracetamol, as only one trial investigated analgesic efficacy for hallux valgus specifically, more than 300 patients were included in this study ([Jarde 1997](#)). Also, the PROSPECT methodology considers paracetamol a basic analgesic, with a favourable risk-benefit profile ([Joshi 2019](#)).

Opioids

- Opioids are recommended for rescue postoperative analgesia (Grade D), if other recommended approaches are not adequate.

Interventions that are NOT recommended

	Intervention	Reason for not recommending
Pre-operative	Pregabalin	Limited procedure-specific evidence
	Clonidine as perineural adjunct for a combined femoral and sciatic nerve block	Lack of procedure-specific evidence
	Fentanyl as perineural adjunct for a combined femoral and sciatic nerve block	Lack of procedure-specific evidence
Intra-operative	Wound infiltration with extended release bupivacaine	Limited procedure-specific evidence
	Wound infiltration with dexamethasone	Limited procedure-specific evidence
	Continuous wound infiltration with local anaesthetics	Lack of procedure-specific evidence
Postoperative	Plaster slipper versus crepe bandage	Lack of procedure-specific evidence
	Homeopathic traumeel	Lack of procedure-specific evidence
Surgical technique	Percutaneous chevron osteotomy	Conflicting procedure-specific evidence
	Bioabsorbable magnesium screws	Lack of procedure-specific evidence

Overall PROSPECT recommendations

Overall recommendations for pain management in patients undergoing hallux valgus repair. Noteworthy, the literature on sciatic block did not meet inclusion requirements for PROSPECT methodology.

Recommendations for pain management in hallux valgus repair surgery

Pre-operative and intra-operative interventions	<ul style="list-style-type: none"> • Paracetamol (Grade D) • COX-2 selective inhibitor or NSAID (Grade A) • Systemic steroids (Grade A) • Ankle block (Grade A) or wound infiltration with single administration of local anaesthetics (Grade A). Ankle block recommended as a first choice and wound infiltration as an alternative (Grade D).
Postoperative interventions	<ul style="list-style-type: none"> • Paracetamol (Grade A) • COX-2 selective inhibitor or NSAID (Grade A) • Opioid for rescue (Grade D)