

PAEDIATRIC PLAN A BLOCKS **Popliteal Level Sciatic Nerve**

INDICATIONS: Leg, foot & ankle analgesia e.g., for fracture fixation, tendon transfers/lengthening, tibial osteotomy, ankle arthroplasty, club foot repair

TARGET: Sciatic nerve (ScN) or branches; common peroneal nerve (CPN) & tibial (TN)

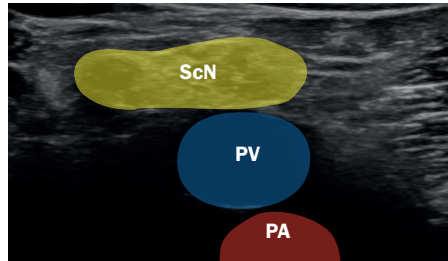
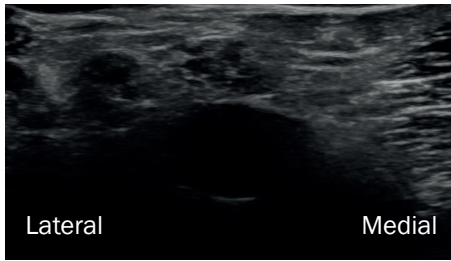
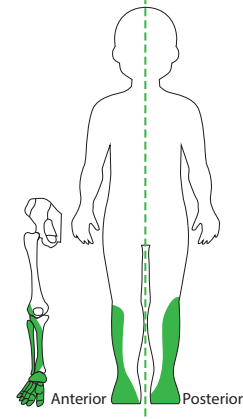
LOCAL: 0.25% Levobupivacaine (max 2.5 mg/kg)
0.2-0.3ml/kg up to 15ml

KIT

- PPE (droplet precautions)
- Gloves
- Linear US probe + cover
- Sterile gel
- 0.5% chlorhexidine
- 50mm or 100mm 22G NR fit block needle
- Syringe for LA
- Gown, drape, and nerve catheter kit if required

PRE-PROCEDURE

- Assistant, monitoring (ECG, SpO₂, BP) & IV access
- Usually under general anaesthesia in a paediatric patient
- US machine on opposite side to operator
- Aseptic skin prep (allow to dry)
- Patient in lateral position facing US machine, operator behind patient (alternative positions include supine with leg elevated or prone)



EXAMPLE TIMINGS

- Intra-operative analgesia usually achieved in 20-30mins
Analgesia for 8+h post block, consider IV dexamethasone 0.2mg/kg to prolong block
- Catheter technique intermittent bolus or infusion regimens both accepted (catheter duration 2-5 days)

NOTE

- N.B. in children under 2 years old the popliteal artery is a particularly useful landmark.
- Point of division of sciatic nerve highly variable

SCANNING

- US probe transverse across posterior thigh (just proximal to popliteal skin crease)
- Identify popliteal artery & scan proximally to view ScN (superficial to artery & between/deep to hamstring muscles)
- Tilt probe caudally to optimise view of nerve(s)
- Scan proximally & distally to identify point ScN divides into CPN (often lateral and more superficial) & TN

STOP BEFORE YOU BLOCK

(Follow Prep, Stop, Block)

- N.B. Full asepsis if catheter insertion
- Block needle in plane (lateral to medial) through single skin puncture, deep to biceps femoris tendon (out of plane preferred for catheter insertion)
- Deposit LA within circumneural sheath at CPN/TN bifurcation point
- Inject deep to nerve initially, then superficial (sometimes one injection is sufficient)
- Low-pressure injection (<15cm H₂O), stop if LA spread not seen
Aspirate every 3-5ml and every needle reposition
- +/- catheter insertion - check position of catheter under direct vision & secure



REFERENCES

Aldridge et al (2023) RA-UK Plan A Paeds Blocks Poster – Upper Limb & Trunk and Lower Limb
Bowness et al (2021) International consensus on anatomical structures to identify on ultrasound for the performance of basic blocks in ultrasound-guided regional anaesthesia
<http://dx.doi.org/10.1136/rapm-2021-103004>
Haslam et al (2021) Prep, stop, block: refreshing 'stop before you block' with new national guidance.
<https://www.ra-uk.org/index.php/prep-stop-block>

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