

## PAEDIATRIC PLAN A BLOCKS

# Axillary Level Brachial Plexus

**INDICATIONS:** Analgesia for elbow, forearm and hand surgery

**TARGET:** Musculocutaneous (McN), radial (RN), median (MN) & ulnar (UN) nerves (+ medial cutaneous nerves of arm/forearm (MCNA/F) & intercostobrachial (ICBN))

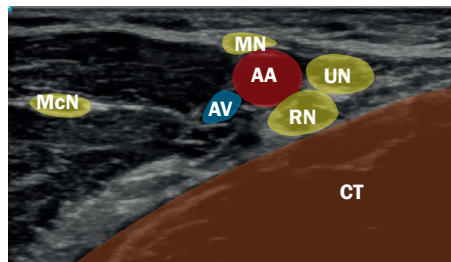
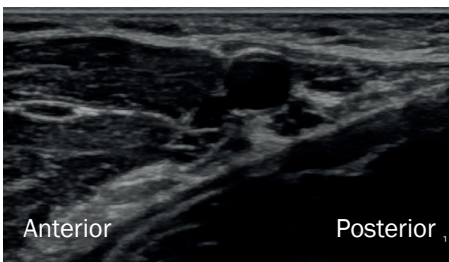
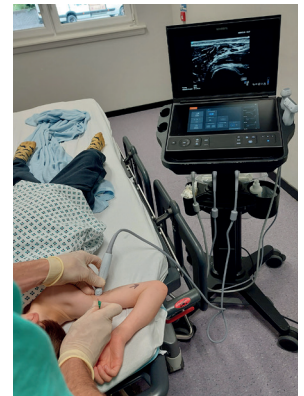
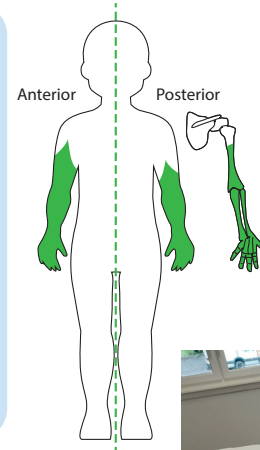
**LOCAL:** 0.25% Levobupivacaine (max 2.5 mg/kg)  
0.2-0.5ml/kg (up to 15ml)

### KIT

- PPE (droplet precautions)
- Gloves
- Linear US probe + cover
- Sterile gel
- 0.5% chlorhexidine
- 50 mm 22G NR fit block needle
- Syringe for LA

### PRE-PROCEDURE

- Assisitant, monitoring (ECG, SpO<sub>2</sub>, BP) & IV access
- Usually under general anaesthesia in a paediatric patient
- Operator at head of bed, patient semi-recumbent with shoulder abducted & externally rotated, elbow flexed
- US machine on block side
- Aseptic skin prep (allow to dry).



### EXAMPLE TIMINGS

- Intra-operative analgesia usually achieved in 20mins
- Analgesia for 8 hr+ post block, consider IV dexamethasone 0.2mg/kg to prolong block

### SCANNING

- US probe transverse across proximal medial arm (junction of biceps and pec major)
- Identify axillary artery (AA) and vein(s) (AV) over conjoint tendon (CT)
- Identify nerves (McN, RN, MN, UN) (McN is found often between coracobrachialis and biceps, moving laterally further distally)

### STOP BEFORE YOU BLOCK

(Follow Prep, Stop, Block)

- Apply pressure with probe to compress AV before insertion of needle
- Block needle in plane through single skin puncture
- Aim to go between AA and CT first for RN and potentially UN, then over the AA for MN (travels with AA) UN and then McN
- S/cut injection under probe to cover ICBN
- Low-pressure injection (<15cmH2O). Stop if LA spread not seen.
- Aspirate every 5ml and every needle reposition



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Anaesthesia  
& Pain Therapy

### REFERENCES

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Bowness et al (2021) International consensus on anatomical structures to identify on ultrasound for the performance of basic blocks in ultrasound-guided regional anaesthesia  
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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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