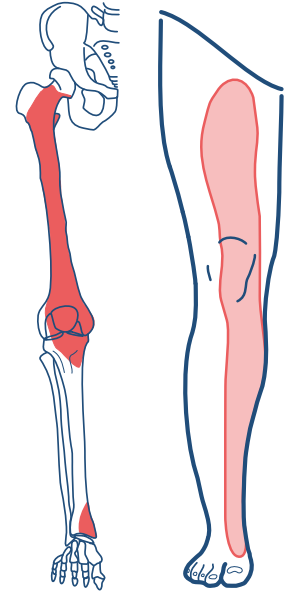
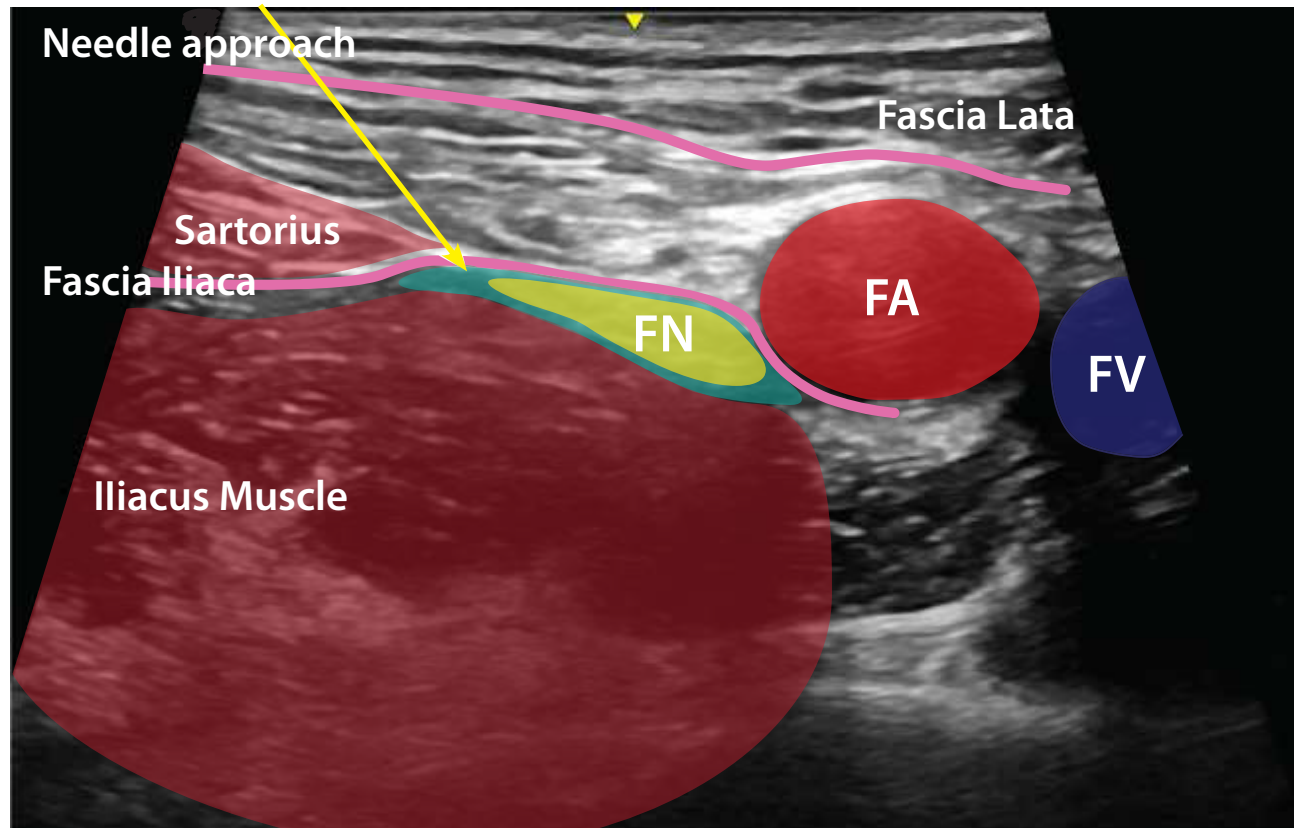
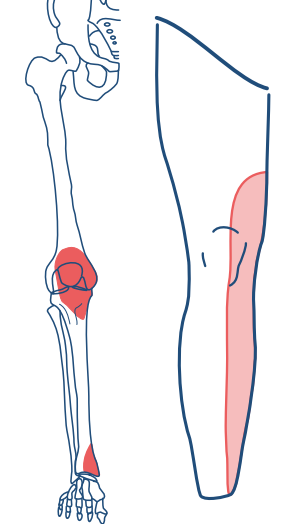
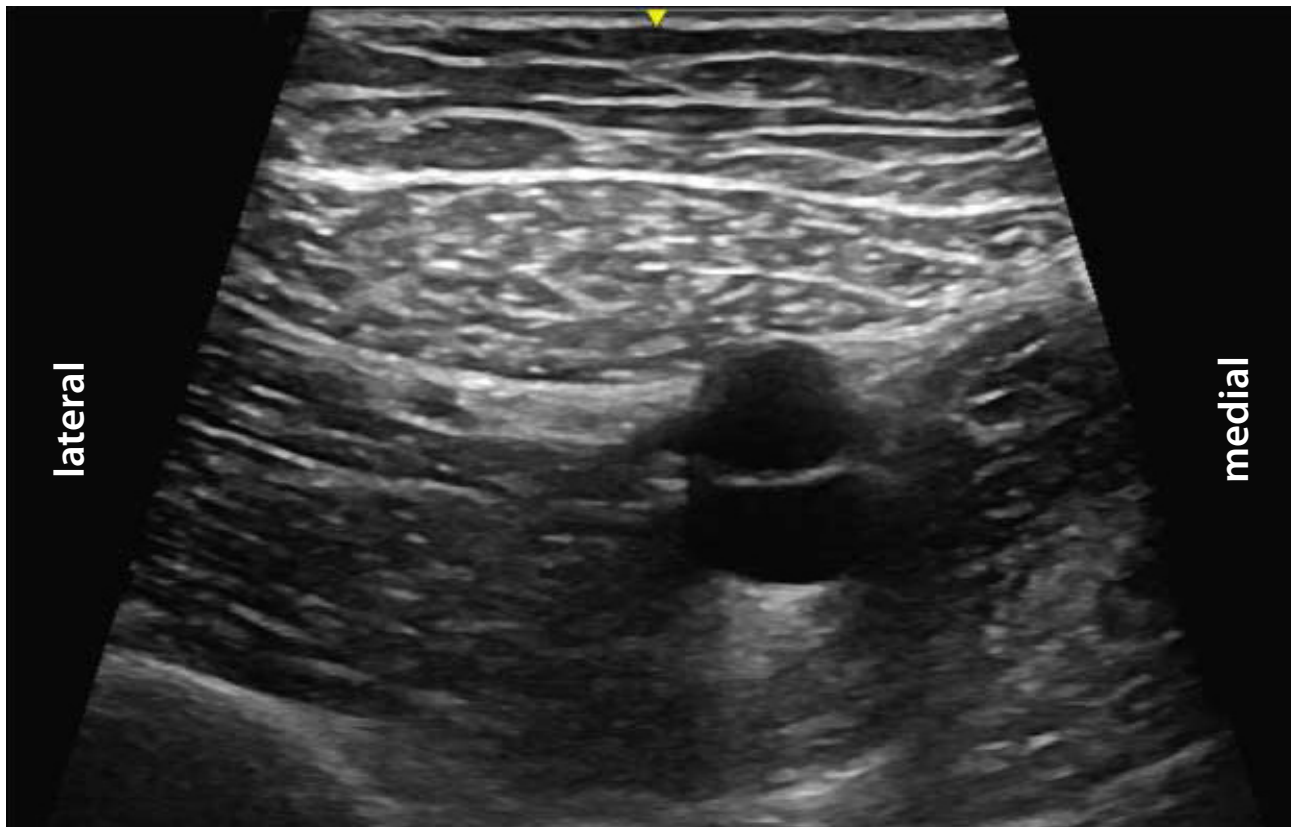
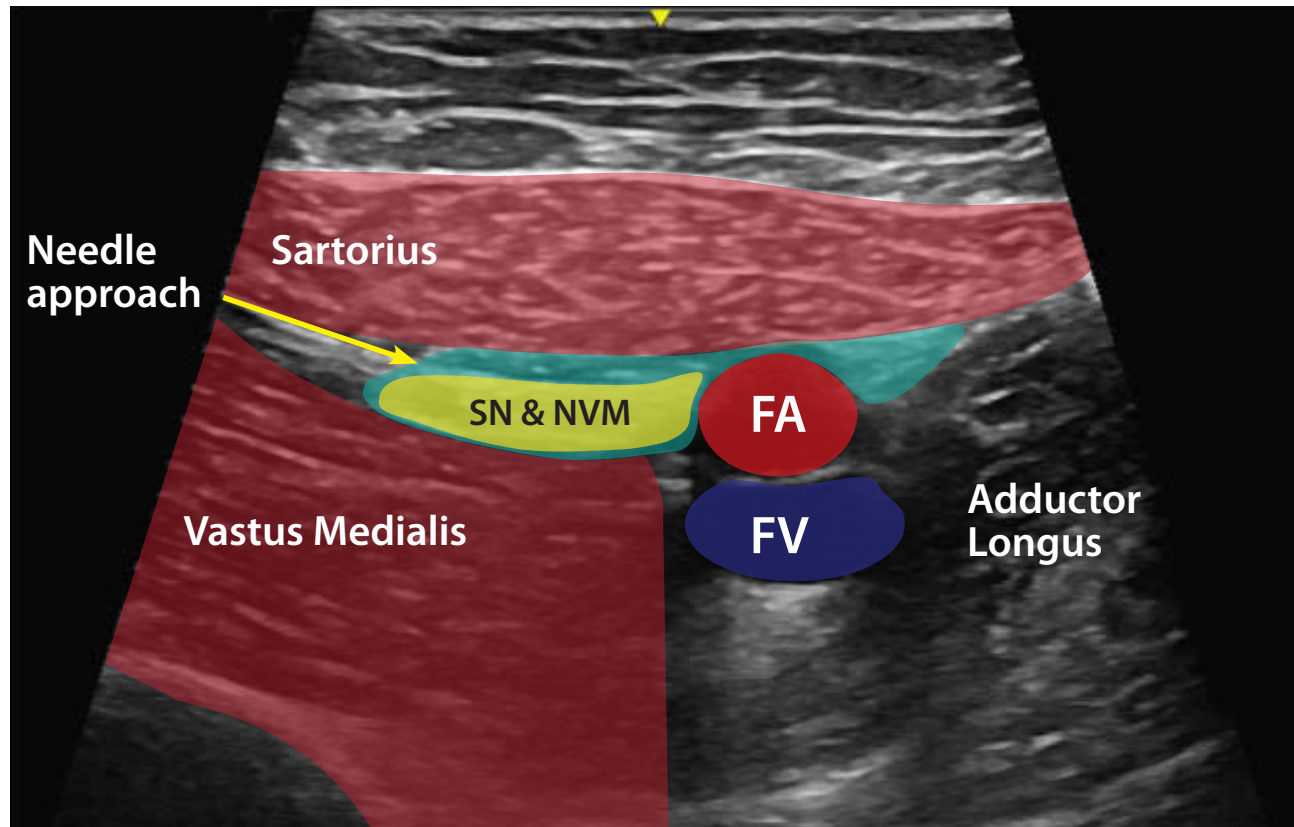
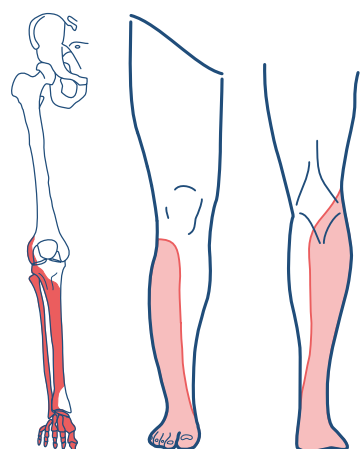
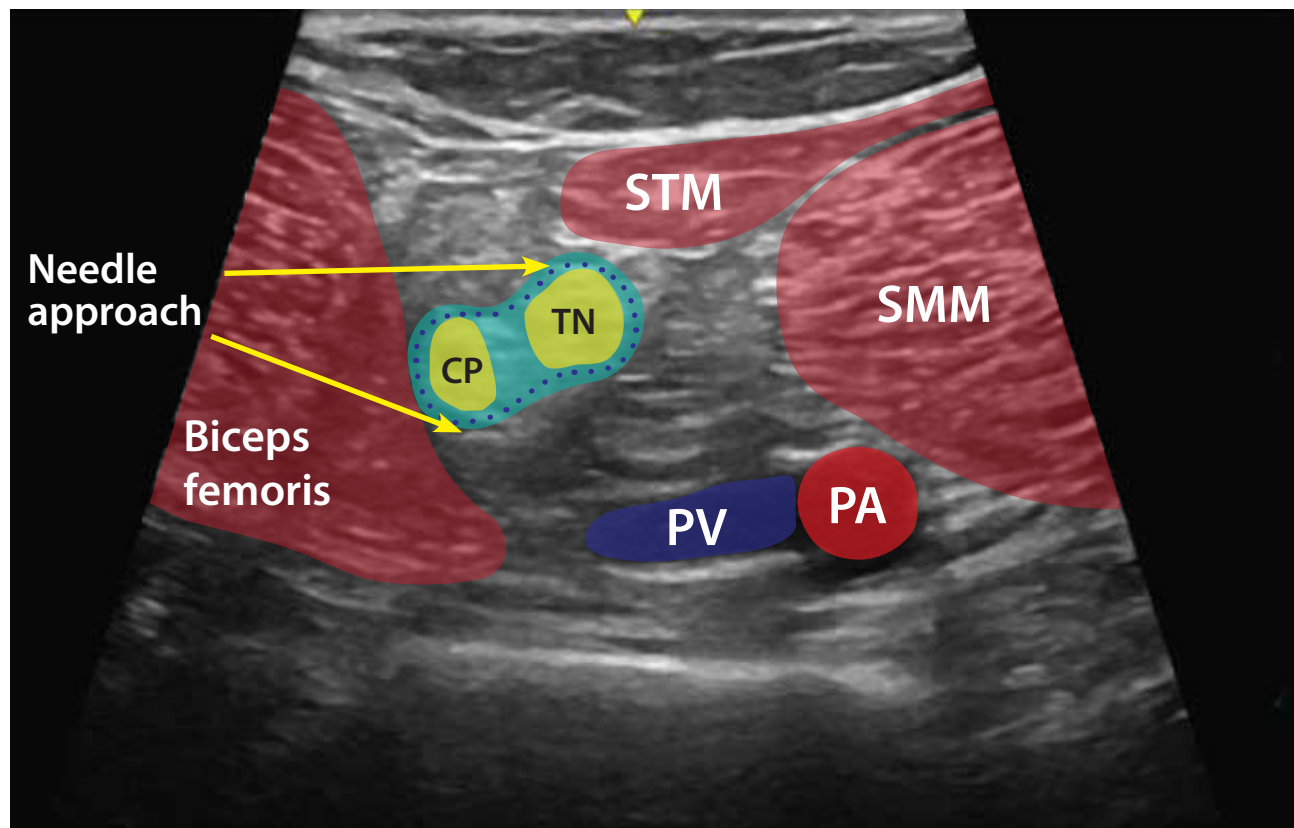
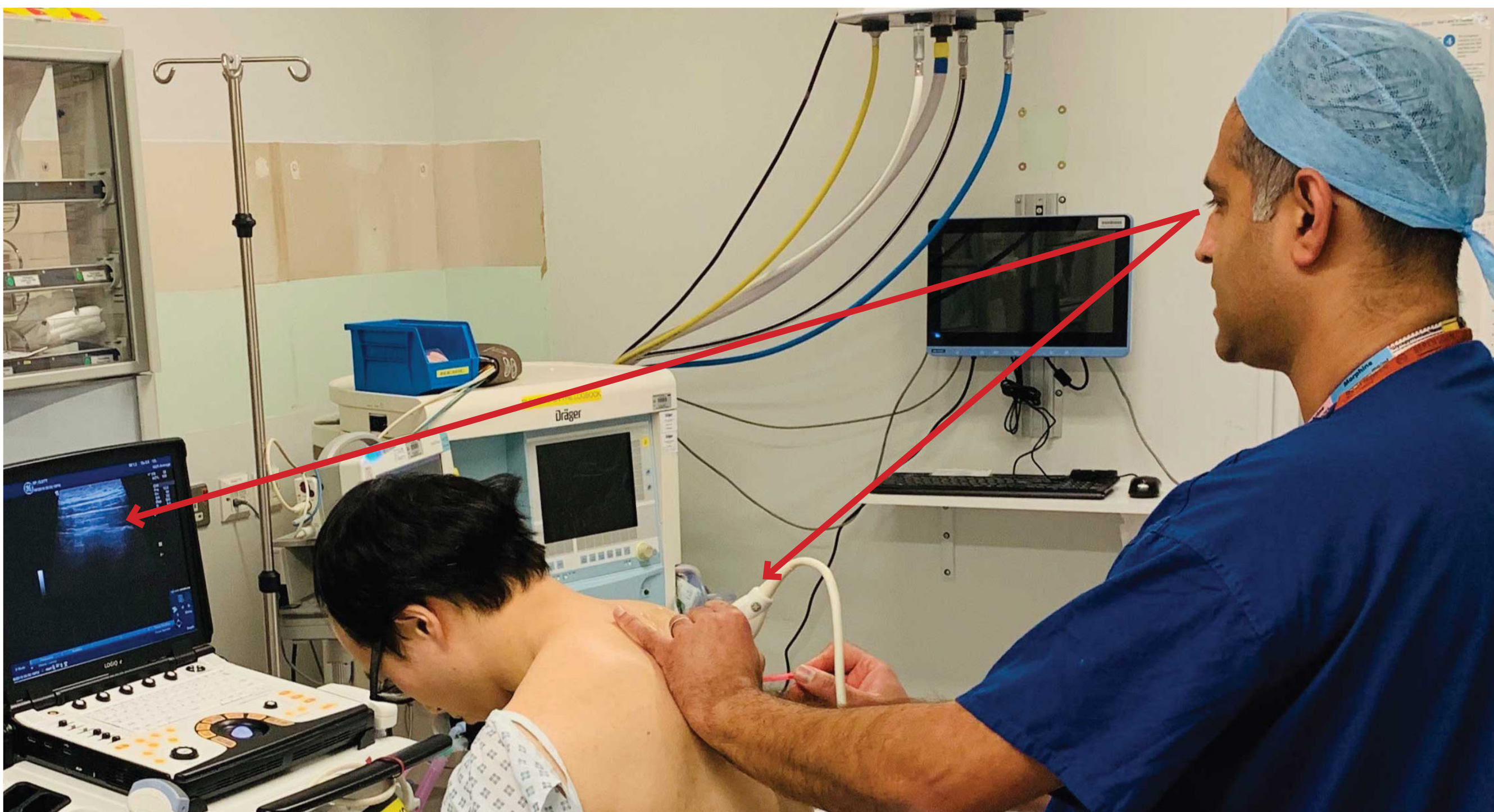


LOWER LIMB PLAN A BLOCKS

	PROBE POSITION	ULTRASOUND IMAGE	ULTRASOUND ANATOMY
FEMORAL NERVE BLOCK Indications: Hip (or knee) procedures Positioning: Supine, leg slightly abducted Depth: 1 – 4cm Needle: 22G 50 – 100 mm Volume: 10 – 20 ml  Abbreviations FN = Femoral Nerve FA = Femoral Artery FV = Femoral Vein	cephalad  lateral	 Probe position: Transverse across upper thigh, just below the inguinal ligament. Needle approach: In-plane, lateral to medial. Best view: Femoral artery and vein medially, femoral nerve just lateral to the artery underneath fascia iliaca. Technique: Needle insertion lateral to the nerve below the fascia iliaca. Needle can be moved to ensure LA surrounding the nerve.	 Spread of LA: Below the fascia iliaca, surrounding the nerve. Tips: The femoral nerve can be difficult to visualise. Optimise the image using a caudal and cranial tilt of the probe. If the nerve is still difficult to visualise, perform a fascia iliaca block by depositing LA below the fascia iliaca. ● = Local Anaesthetic Spread
ADDUCTOR CANAL/FEMORAL TRIANGLE BLOCK Indications: Knee procedures Positioning: Supine, leg slightly abducted and externally rotated Depth: 1 – 6 cm Needle: 22G, 100 – 150 mm Volume: 10 – 20 ml  Abbreviations SN = Saphenous Nerve NVM = Nerve to Vastus Medialis FA = Femoral Artery FV = Femoral Vein	cephalad  lateral	 Probe position: Transverse position at mid-thigh level, medial aspect. Needle approach: In-plane, lateral to medial. Best View: Femoral artery below the sartorius muscle between vastus medialis and adductor longus. SN and NVM are seen just lateral to the artery. Technique: Needle insertion towards the femoral artery, deep to sartorius.	 Spread of LA: In the plane below sartorius muscle. Tips: Identify the femoral artery in the upper thigh and trace it distally to the mid-thigh. When this block is performed in the upper/middle thigh, the needle is usually located in the femoral triangle. ● = Local Anaesthetic Spread
POPLITEAL SCIATIC BLOCK Indications: Foot and ankle procedures Positioning: Supine with hip and knee flexed / lateral / prone Depth: 2 – 6cm Needle: 22G 50 – 100 mm Volume: 20 ml  Abbreviations CP = Common Peroneal Nerve TN = Tibial Nerve PV = Popliteal Vein PA = Popliteal Artery SMM = Semimembranosus Muscle STM = Semitendinosus Muscle = Circumneural Sheath	 lateral	 Probe position: Transverse approximately 5cm above the popliteal crease. Needle approach: In-plane, lateral to medial or out-of-plane. Best view: CP and TN just separate and contained within circumneural sheath. Technique: Needle insertion parallel to the probe, aiming above and below the nerve.	 Spread of LA: Surrounding the two nerves and inside the circumneural sheath. Tips: Use gentle pressure to avoid obliterating the popliteal vein. If the nerve is difficult to visualise, tilt the probe towards the knee. The “see-saw sign” can be used to identify the nerve. Aim to inject within the circumneural sheath but outside the epineurium. ● = Local Anaesthetic Spread
LEARN MORE https://ra-uk.org/index.php/news/365-plan-a-blocks  Plan A Blocks Editorial  BJA Education RA Safety & Quality REFERENCES Turbitt et al. Future directions in regional anaesthesia: not just for the cognoscenti. <i>Anaesthesia</i> 2020; 75: 293– 7 Townsend et al. A pocket guide to ultrasound-guided regional anaesthesia. 2nd Edition 2019.	ERGONOMICS 	Getting the best image - Find a comfortable position, relaxed shoulders and back. - Stabilise your hand on the patient, using the ulnar border of your hand. - Optimise ergonomics: Position the patient, needle and US machine all in line of sight. - Optimise US machine settings: Select correct probe, depth and gain.	Needling tips - Perform a STOP moment, involving the anaesthetic assistant, immediately before needle insertion. - Identify the needle tip at all times, use small movements or hydrolocation. - Place the needle next to the nerve, not contacting the nerve. - Observe injection – if you can't see spread of LA – STOP. - Injection should be low pressure and painless – if not – STOP.