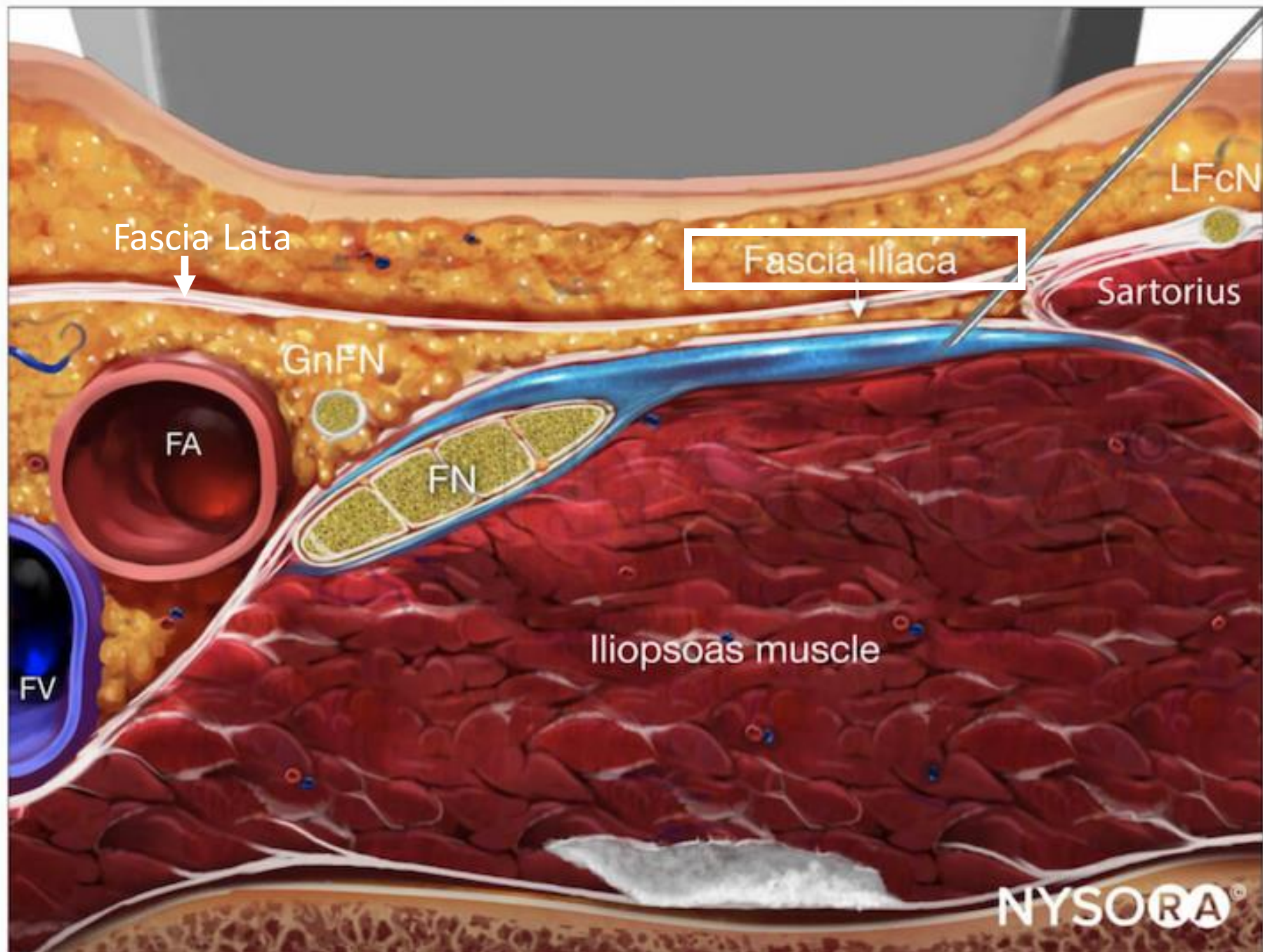


# Ultrasound Guided Fascia Iliaca Compartment Blocks

Allison Zanaboni, MD FAAEM

# But what is a FICB??

Depositing a large volume of local anesthetic (long acting in setting of fracture) into the potential space between the iliopsoas muscle and its overlying fascia (ie the fascia iliaca)



Local anesthetic will diffuse through plane to act on:

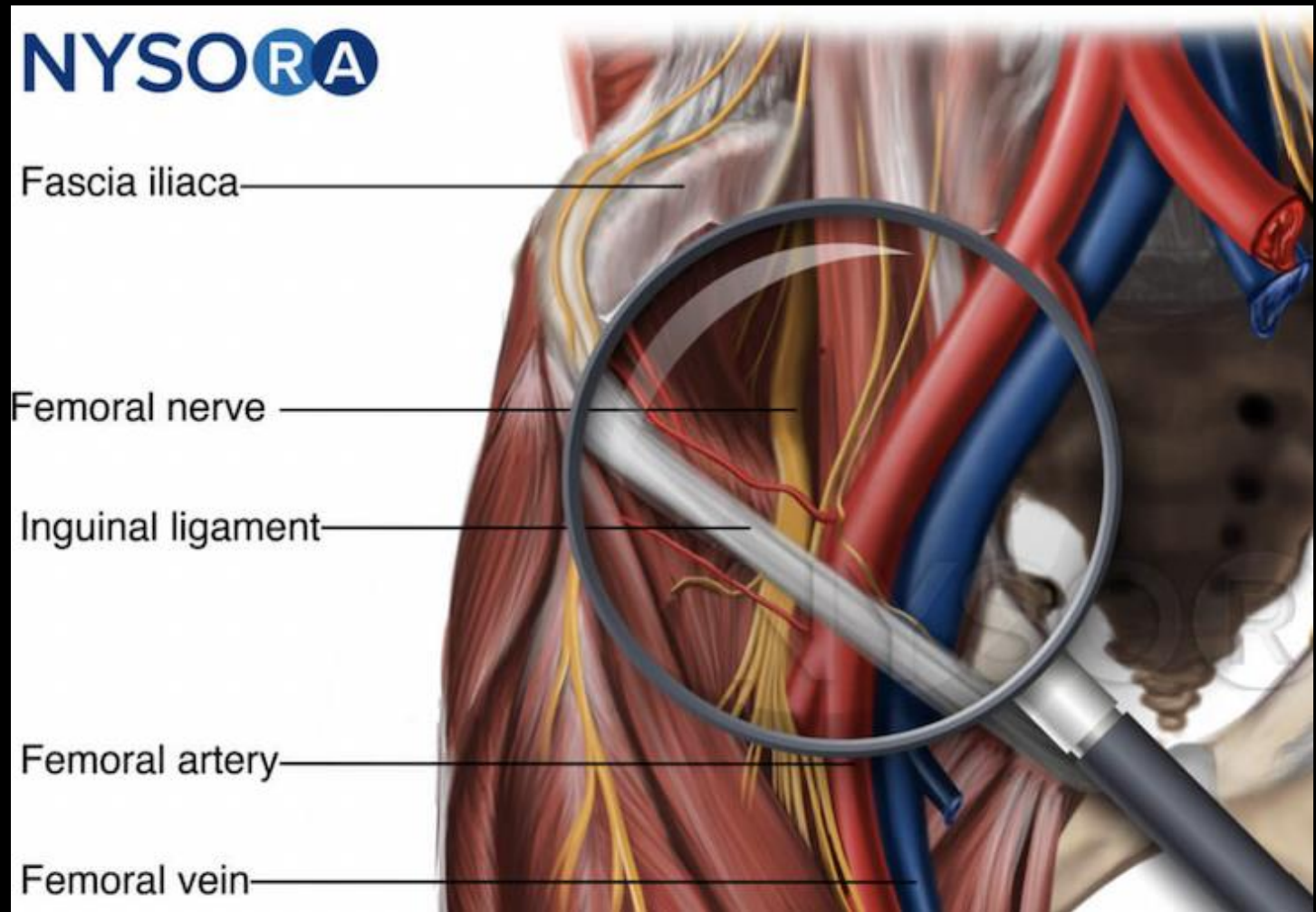
Femoral n.

+

Lateral Femoral Cutaneous n.

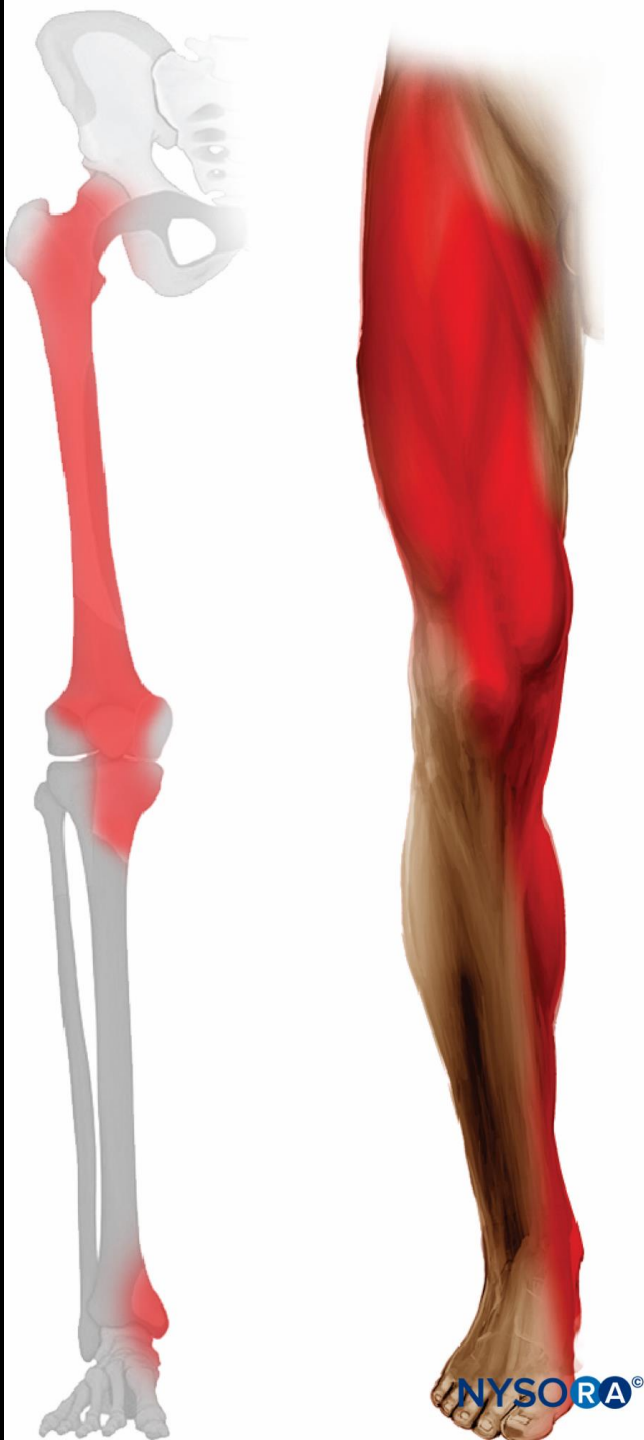
±

Obturator n.



# Femoral nerve

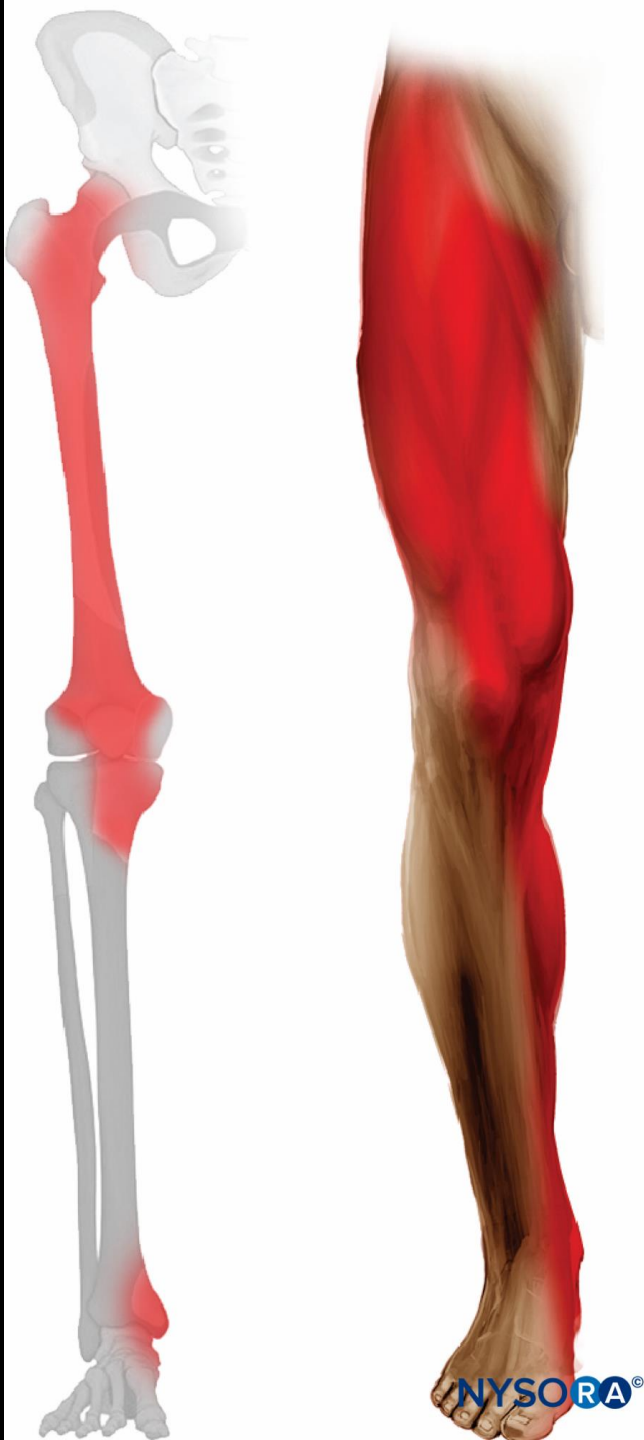
- Sensory function:
  - Cutaneous aspects of anterior and medial thigh
  - Cutaneous strip of medial lower leg (saphenous nerve)
  - Osseous aspects of majority of femur
  - Articular innervation to hip joint
- Motor function:
  - Hip flexion
    - iliacus, sartorius
  - Knee extension
    - quadriceps

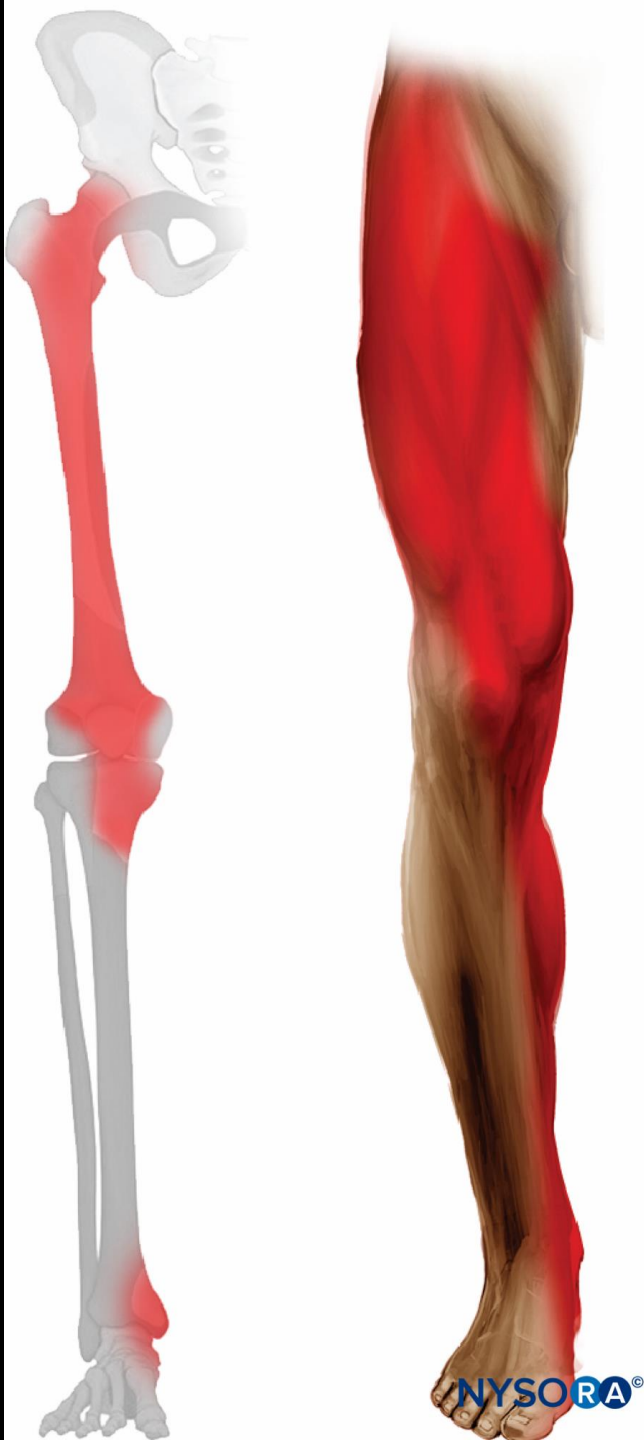




# Lateral femoral cutaneous

- Sensory function:
  - Cutaneous aspects of anterolateral thigh





# Obturator nerve

- Sensory function:
  - Cutaneous aspects of medial thigh
- Motor function:
  - Hip adduction
    - adductor longus, brevis and gracilis muscles

Likely not achieved most of the time

# Compartment blocks= Volume based blocks

Need large volume (40+ cc) to allow spread lateral, medial, cephalad

Dose of local anesthetic based on weight (ideal body weight if obese)

Dilute to desired volume with normal saline



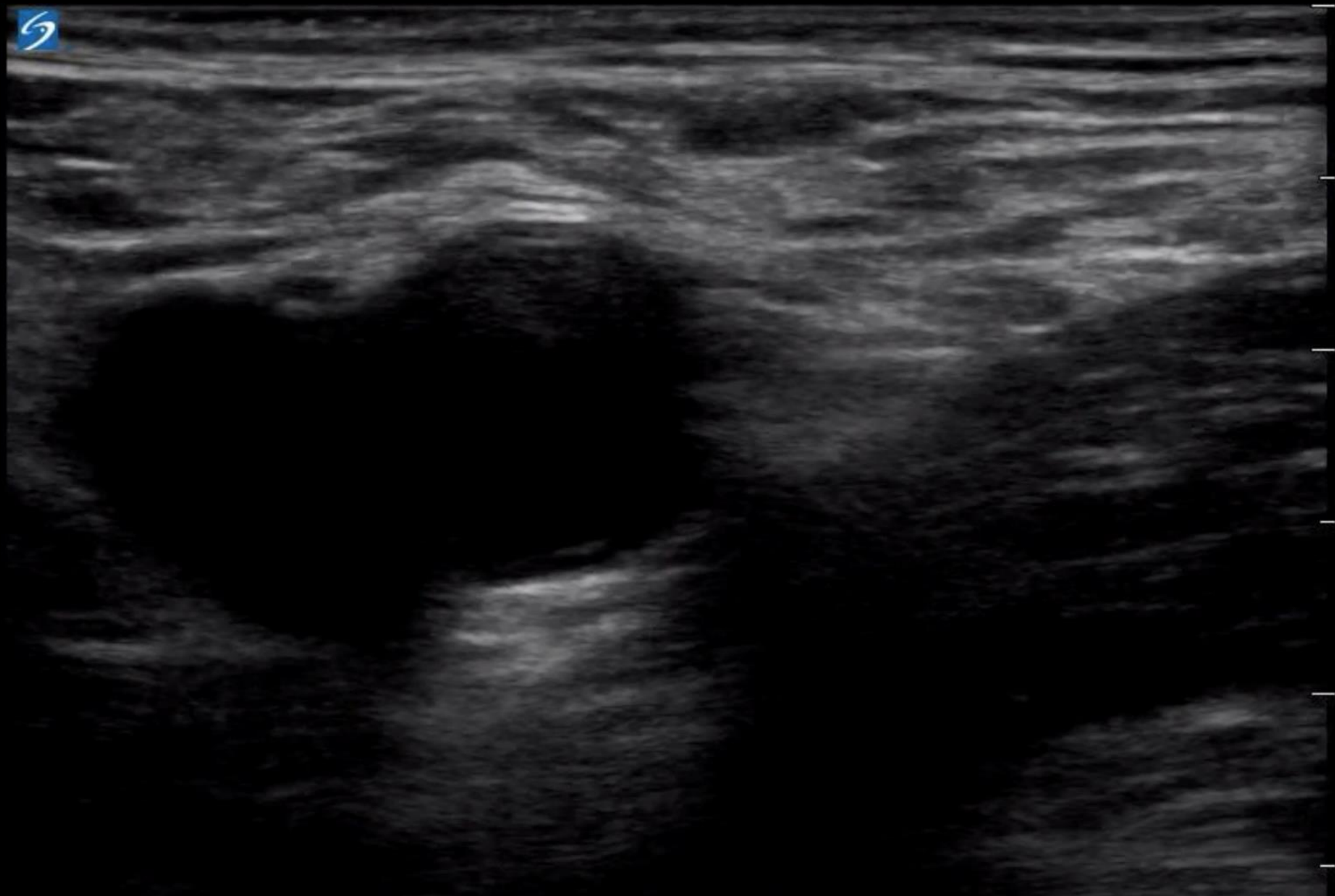
# Long-acting Local Anesthetic

Drug	Max Dose	70kg Dose	Max Total Dose	Onset (min)	Duration	Notes
Ropivacaine 1% (10 mg/mL)	3 mg/kg	210 mg (21 mL)	300 mg	5-15	2-6 hr	Less neurotoxic than lido
Bupivacaine 0.5% (5 mg/mL)	2 mg/kg	140 mg (28 mL)	175 mg	10-15	4-6 hr	High toxicity risk compared to lido; do not use in pregnancy; up to 24 hr analgesia

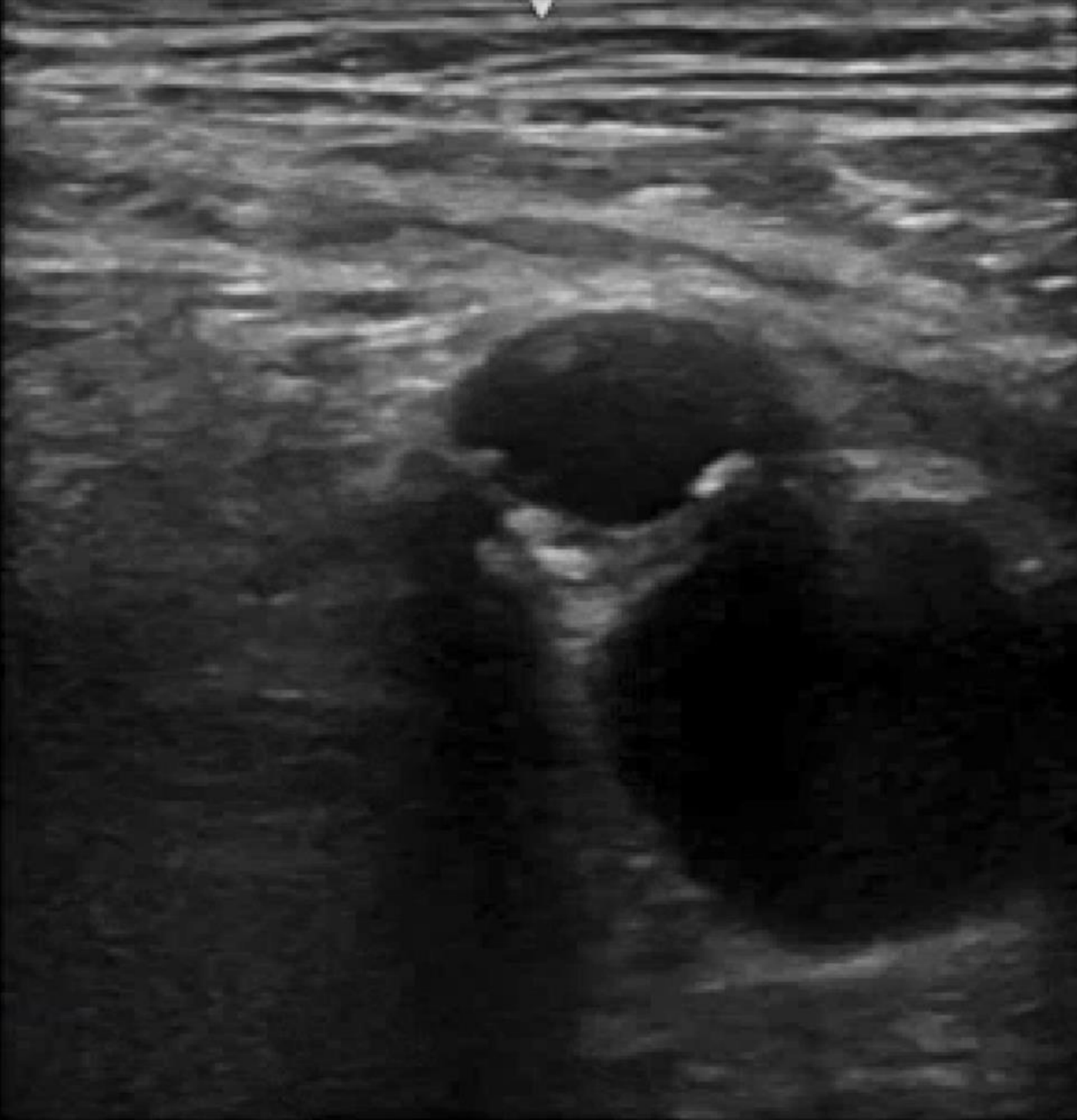
Max dose mg/kg x kg/10 x 1/concentration

Download SafeLocal app to check work





GE  
Le  
RT FI BLOCK



NYSOR®

3-

4-

# So what should happen after the block?

Patient will have improvement in pain within 15-30 minutes

They will have numbness on sensory exam of the anterior and medial thigh

Will note motor function loss at hip flexion and knee extension

# Safety Considerations



**KEEP  
CALM  
AND  
DOUBLE  
CHECK**

LA DOSE



Maintain cardioresp monitor



In Pyxis



# Local Anesthetic Systemic Toxicity

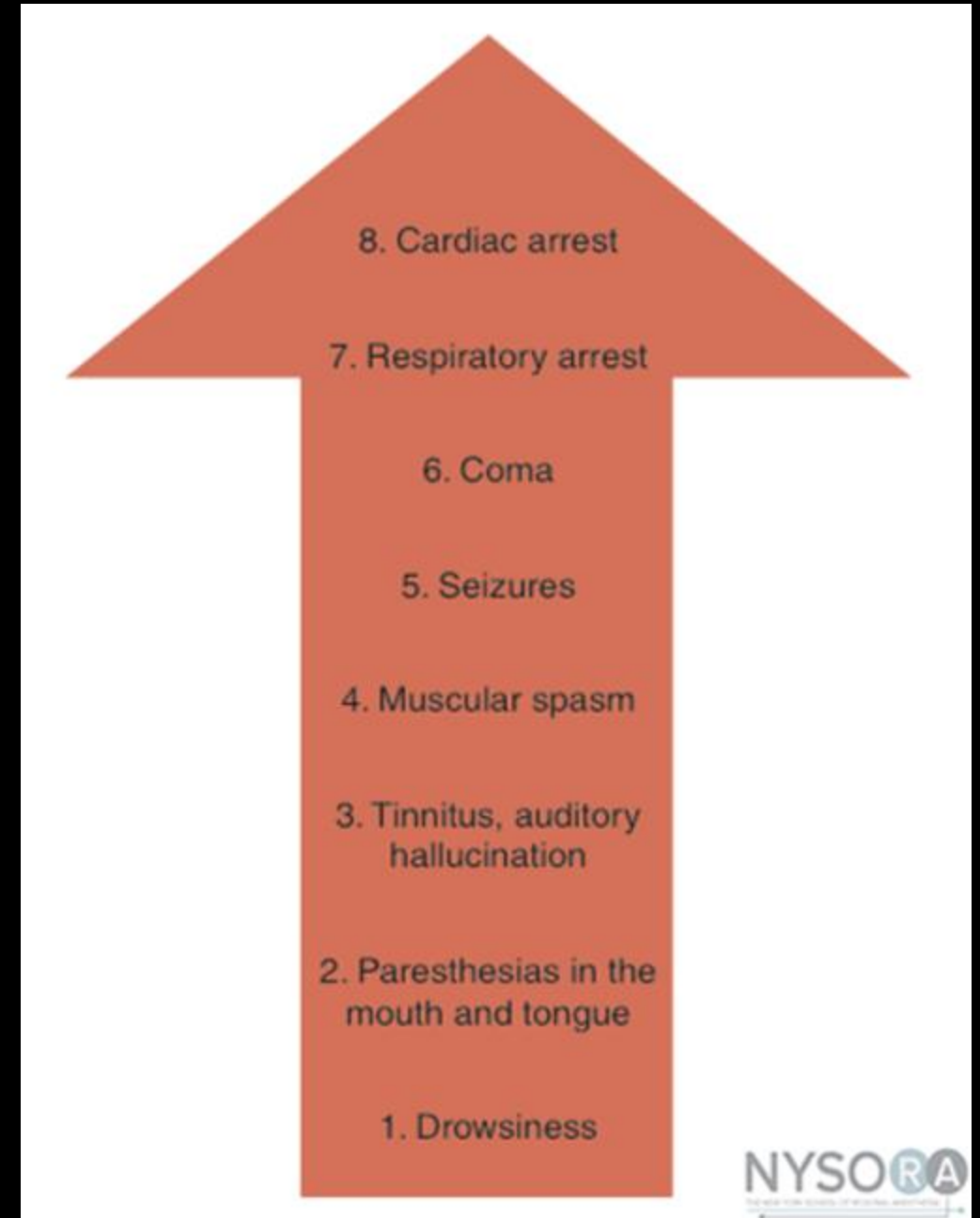
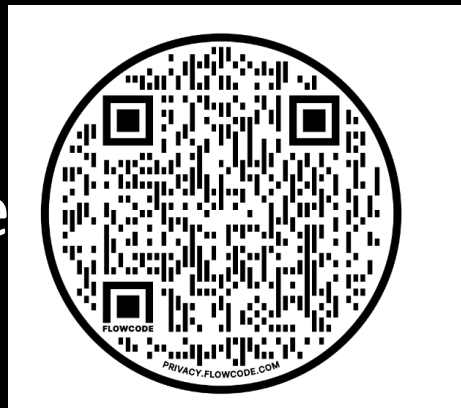
Exceptionally rare, but use caution

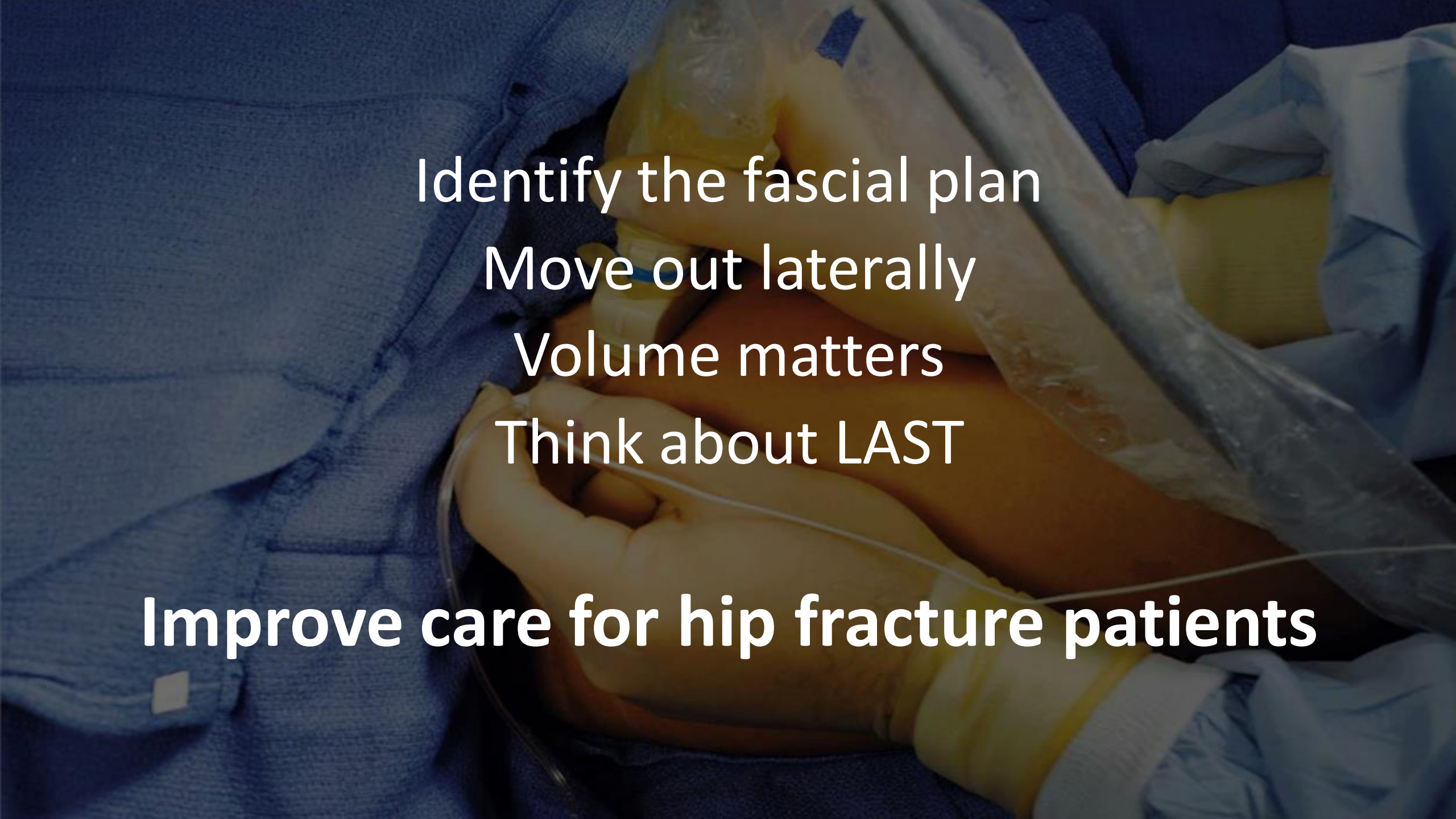
When in doubt, use lower LA

Monitor for symptoms

Be familiar with LAST management

Lipid Rescue





Identify the fascial plan  
Move out laterally  
Volume matters  
Think about LAST

**Improve care for hip fracture patients**