



Next STEP Interventional Ultrasound Course: Hands-on PM&R Applications

Day 1: Dry Lab Stations Overview

The dry lab will consist of nine (9) stations covering the areas outlined below. Participants will be assigned to groups of 4-5 and will remain at their assigned station throughout the session, where they will scan live models under faculty instruction. Faculty will rotate between stations halfway through the session, allowing participants to receive instruction in two topic areas during the lab.

Diagnostic Shoulder Ultrasound

- ACJ
- Long head biceps tendon
- Rotator cuff tendons--Supraspinatus tendon, infraspinatus tendon, teres minor tendon, subscapularis tendon
- Posterior GHJ

Upper Extremity Nerve & Muscle Identification

- Median nerve
- Ulnar nerve
- Arm muscles – brachialis, brachioradialis
- Forearm muscles – flexor carpi ulnaris, flexor digitorum profundus, flexor digitorum superficialis, pronator teres, flexor pollicis longus
- Wrist muscles – pronator quadratus

Day 1 and 2: Cadaver Stations Overview

The cadaver lab will include nine (9) stations covering the areas outlined below. Cadaver specimens will be available at stations 1-8 for hands-on scanning. Participants will be assigned to groups of 4-5 and will rotate through each station for the remainder of the course. Each rotation is 60 minutes, with one faculty member assigned to each station.

Station 1. Shoulder Injections

- AC joint
- GH joint
- Biceps tendon sheath
- Subacromia/subdeltoid bursa
- *Rotator interval

Station 2. Knee Injections

- Knee joint
- Pes anserine bursa
- Distal ITB
- Patellar tendon tenotomy
- *Patellar tendon scraping

Station 3. Wrist and Hand Injections

- Carpal tunnel
- APL/EPB tendon sheath at the wrist
- Finger flexor tendon sheath (trigger finger injection)
- CMC joint



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Station 4. Hip Injections

- Hip joint
- Greater trochanter bursa
- Iliopsoas tendon sheath
- Ischiogluteal bursa injection

Station 5. Spasticity Management: Forearm Flexors Station

- Flexor carpi ulnaris
- Palmaris longus
- Flexor carpi radialis
- Pronator teres
- Flexor digitorum superficialis
- Flexor digitorum profundus
- Flexor pollicis longus
- Pronator quadratus

Station 6. Spasticity Management: Lower Leg Station

- Gastrocnemius, soleus
- Posterior tibialis
- Extensor digitorum
- Extensor hallucis longus

Station 7. Ankle Injections

- Tibiotalar joint
- Peroneal tendon sheath
- Subtalar joint
- 1st MTP joint
- *Achilles tendon
- *Posterior tibialis tendon
- *Plantar fascia

Station 8. Elbow Injections

- Elbow joint
- Common extensor tendon tenotomy
- Distal bicep tendon
- Perineural ulnar nerve
- **Common flexor tendon tenotomy

Station 9. Ask the Expert (Scan Live Model)

- Best practices for ultrasound-guided injections
 - Needle handling and bevel orientation
 - Common needle control challenges, including directional drift, and corrections
 - Troubleshooting poor needle visualization
- Common questions about anesthetics and injectable agents