

**Fascia Iliaca Nerve Block for Femoral Fractures**

(C) BCH Emergency Department

**Inclusion Criteria**

- Confirmed acute femur fracture
- ≥ 2 year old
- Patient in ED
- GCS ≥ 14
- ASA 1 or 2

**Exclusion Criteria**

- Any neurovascular compromise to extremity
- Suspected compartment syndrome
- Crush injuries
- Open fractures
- Coagulopathy
- Multisystem trauma (head, abdominal injury, pelvis, etc)
- High risk for LAST (cardiac, hepatic, or metabolic disorder; infants < 6 months)

<sup>1</sup> **Maximum local anesthetic dose:**  
**IMPORTANT: actual dose will be about 1/2 maximum; use IBW if overweight**

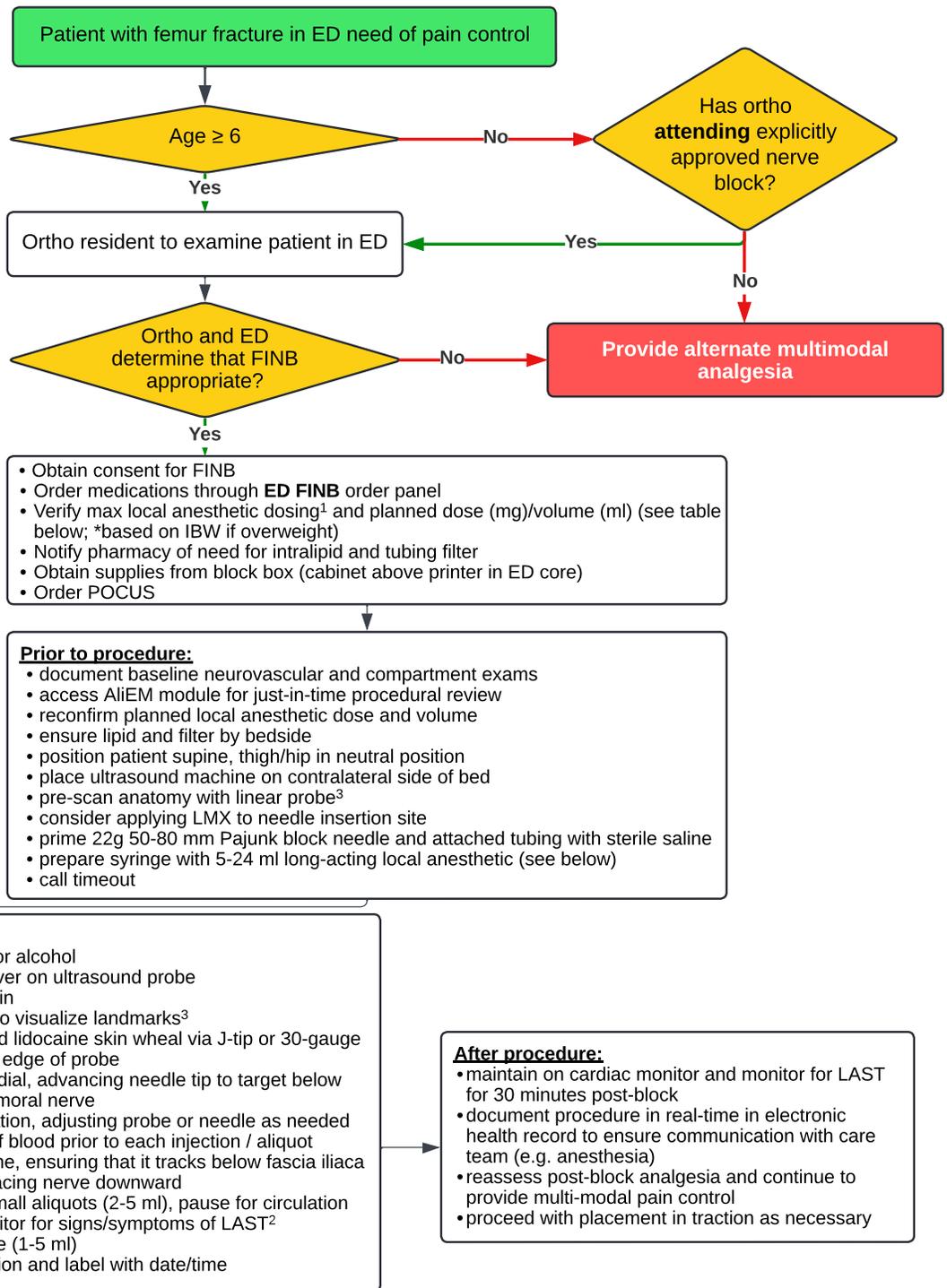
- Ropivacaine 0.5% (5 mg/ml) = 3 mg/kg (0.6 ml/kg); absolute max = 300 mg (60 ml)
- Ropivacaine 0.2% (2 mg/ml) = 3 mg/kg (1.5 ml/kg); absolute max = 300 mg (60 ml)
- Bupivacaine 0.25% (2.5 mg/ml) = 2 mg/kg (0.8 ml/kg); absolute max = 175 mg (70 ml)

<sup>2</sup> **LAST Recognition and Treatment:**

- Neuro (may precede cardiotoxicity): circumoral paresthesia, metallic taste, dyarthria, dizziness -- muscle twitching, agitation -- seizures. At higher doses, unconsciousness, coma, respiratory arrest.
- Cardiac: ventricular ectopy, malignant ventricular arrhythmia, hypotension, bradycardia, asystole
- **TREAT SEIZURES WITH BENZOS**
- Treat arrhythmia/cardiac arrest with PALS (DECREASE EPINEPHRINE TO 0.001 mg/kg)
- Give 20% intralipid, 1.5 mg/kg over 1 minute followed by continuous infusion 0.25 ml/kg/min. Can repeat bolus q5min x 2 if persistent cardiovascular instability or deterioration.

<sup>3</sup> **Landmarks (visualize all simultaneously):**

- femoral vein
- femoral artery prior to its bifurcation
- femoral nerve
- fascia iliaca overlying nerve
- iliopsoas muscle, sartorius muscle laterally



**Local anesthetic dosing (~1/2 maximum dose, use ideal body weight for obese patients)**

Medication	15-19.9 kg	20-24.9 kg	25-29.9 kg	30-39.9 kg	40-49.9 kg	50-59.9 kg	60+ kg
Typical Total Volume (LA + Saline)	12.5 ml	15 ml	17.5 ml	20 ml	22.5 ml	25 ml	30 ml
<b>Ropivacaine 0.5% (5 mg/ml) (preferred) (max = 0.6 ml/kg)</b>	5 ml + 7-10 ml saline	7 ml + 7-10 ml saline	8 ml + 7-10 ml saline	10 ml + 7-10 ml saline	14 ml + 7-10 ml saline	17 ml + 7-10 ml saline	20 ml + 7-10 ml saline
<b>Bupivacaine 0.25% (2.5 mg/ml) (max = 0.8 ml/kg)</b>	7 ml + 5-7 ml saline	9 ml + 5-7 ml saline	11 ml + 5-7 ml saline	14 ml + 5-7 ml saline	18 ml + 5-7 ml saline	22 ml + 5-7 ml saline	24 ml + 5-7 ml saline
<b>Ropivacaine 0.2% (2 mg/ml) (max = 1.5 ml/kg)</b>	12 ml + 1-3 ml saline	14 ml + 1-3 ml saline	16 ml + 1-3 ml saline	19 ml + 1-3 ml saline	22 ml + 1-3 ml saline	25 ml + 1-3 ml saline	30 ml + 1-3 ml saline

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Disclaimer: This algorithm serves as a guideline only and should not replace clinical judgment. See also ED Policy 17.57: Ultrasound-guided Fascia Iliaca Nerve Block for Femoral Fractures on PowerDMS.