

# EPIDURAL ANESTHESIA

1

- Gather all necessary supplies: epidural kit, sterile gloves, mask, appropriate medications
- Ensure patient is in optimal position for epidural insertion
- Locate L3-L4 interspace using appropriate landmarks
- Using sterile technique, prepare epidural kit
- Prep and drape the patients back

2

- Inject local (1% Lido) creating a wheal at the skin
- Insert Tuohy needle into wheal, advancing until engaged into the ligament
- Remove inner stylet and attach LOR glass syringe filled with air or saline
- Advance the Tuohy needle a few millimeters at a time, tapping on the plunger of the syringe each time until you get the loss of resistance
- Remove the LOR syringe and count the marks on the needle to identify at what cm you lost resistance

3

- Insert the epidural catheter to the desired length and remove the Tuohy needle
- Pull back on the catheter to the desired marking at the skin after the Tuohy needle has been removed
- Attach connector and filter, aspirate to ensure there is no CSF
- Give the TEST DOSE: 1.5% Lidocaine with Epi (3mLs)
- Secure the catheter to the patients back and up the shoulder

## Continuous Infusion Medications

**Bupivacaine 0.0625–0.125 % @ 8-15 mL/hr**

**Ropivacaine 0.15–0.2 % @ 8 – 15 mL/hr**

\*Opioids can be added to continuous infusions

## Bolus Medications

**2-Chloroprocaine 2 – 3 %**

Top Off / Analgesia: not commonly used  
Emergency / Anesthesia: 10 – 20 mL

**Lidocaine 1.5 – 2 %**

Top Off / Analgesia: 5 – 8 mL  
Emergency / Anesthesia: 10 – 20 mL

**Bupivacaine 0.125 – 0.25 %**

Top Off / Analgesia: 5 – 8 mL

**Ropivacaine 0.2 %**

Top Off / Analgesia: 5 – 8 mL

## Things to Remember

- ◆ Patient's PMH
- ◆ Coagulation studies
- ◆ Anticoagulants / Medications
- ◆ IV hydration
- ◆ Absolute vs. Relative Contraindications
- ◆ Positioning, stay midline
- ◆ VOLUME dictates spread of LA
- ◆ Test dose!!!

## Possible Complications

- ◆ Post Dural Puncture Headache (PDPH)
- ◆ Patchy Block → Subdural placement
- ◆ Intrathecal vs. Intravascular injection
- ◆ Epidural hematoma

# SPINAL ANESTHESIA

1

- Gather all necessary supplies: spinal kit, sterile gloves, mask, appropriate medications
- Ensure patient is in optimal position for spinal insertion
- Locate L3-L4 interspace using appropriate landmarks
- Using sterile technique, prepare spinal kit
- Prep and drape the patients back

2

- Inject local (1% Lido) creating a wheal at the skin
- Insert spinal introducer into previously made skin wheal
- Place spinal needle through introducer, continue advancing until you feel a pop -- this is the needle puncturing the dura
- Remove the stylet from the spinal needle and watch for backflow of CSF

3

- Attach spinal medication syringe and aspirate, looking for the barbotage of CSF in your syringe
- Inject the medication into the intrathecal space, informing the patient that they may begin to feel heaviness and warmth in their lower extremities
- Remove everything from the back in one swift motion and quickly lay the patient flat so the medication spreads to its desired level

## Single-Shot Spinal Medications

### Bupivacaine

- 0.5 % (isobaric), 1.5 – 3 mLs
- 0.75 % (hyperbaric), 1 – 2 mLs

\*Opioids can be added as adjuncts to intrathecal Local Anesthetics

\*Any medication administered into the intrathecal space must be **PRESERVATIVE FREE**

**Other medications such as Lidocaine and Tetracaine are less commonly used**

## Things to Remember

- ◆ PMH → Aortic Stenosis?
- ◆ Coagulation studies / Anticoagulation
- ◆ Relative vs. Absolute Contraindications
- ◆ IV hydration pre-procedure
- ◆ Sympathectomy → have **vasopressors**
- ◆ **Dosage + Baricity** = spread of LA
- ◆ Position patient immediately after administration

## Possible Complications

- ◆ Severe hypotension
- ◆ Nausea & vomiting
- ◆ Total Spinal