# Perioperative Total Joint Protocol

## Pre-op Medications (To be ordered by the surgical team)

- Acetaminophen 1 g
  - 650 mg if < 50 kg
  - 500 mg in patients with liver dysfunction, including cirrhotic patients.
- Gabapentin 300 mg PO (including patients on hemodialysis)
  - If the patient is on Gabapentin or Pregabalin at home, you can administer home dosage or the dosage listed above, whichever one that is higher.
  - Held if patient ≥ 75 years of age, history of dementia, or at risk for delirium.
- Scopolamine TD patch. Held if patient ≥ 75 years of age, history of dementia, or at risk for delirium.

## Pre-operative Neuraxial Technique

- Primary joint: Spinal w/ 2.5 mL of 0.5% Isobaric Bupivacaine
- Revision: CSE w/ 2.5 mL of 0.5% Isobaric Bupivacaine.
- Equipment:
  - Chloraprep
  - Epidural/Spinal Kit
  - 25g Pencan needle if performing a Combined Spinal/Epidural
  - 22g 3.5 inch Quincke needle for unanticipated difficult spinal procedures
  - Bupivacaine 0.5% MPF (Preservative Free) x 30 mL from the Pyxis
  - Sterile Gloves
  - 1 medium and 3 large Tegaderms if performing a Combined Spinal/Epidural

## Intraoperative Management

Antibiotics:

- Cefazolin 2g. If > 120 kg, administer 3 g.
- Clindamycin 900 mg if PCN/Cephalosporin allergy

Anesthetic:

- Propofol infusion
- Ketamine 0.5 mg/kg IBW x 1 and/or 0.2 mg/kg/hr infusion. Held if patient ≥ 75 years of age, history of delirium (or at risk for delirium), dementia, poorly controlled psychiatric illness, poorly controlled HTN, or elevated ICP/IOP
- Dexamethasone 8 mg IV (including patients with diabetes)

## Post-operative Management

PACU

- Anesthesia orders
  - Ketorolac 30 mg IV x 1
    - 15 mg if ≥ 65 years of age or < 50 kg
    - In comments section, write "To be administered when spinal wears off"
    - Held if Cr ≥ 1.5 mg/dL, history of active peptic ulcer disease, recent GI bleed, significant CAD or recent CABG, congestive heart failure (EF < 35%), severe hypovolemia, or bleeding disorder/anticoagulated.
  - IV hydromorphone for pain 4-6 and 7-10. Consider IV fentanyl or morphine if a hydromorphone allergy is present
- Saphenous perineural catheter placement by the anesthesiologist assigned to the case, ideally prior to wearing off of the spinal anesthetic.

- Page the "Regional Pain" pager (405-2903) for additional assistance, the Regional Pain nurse will provide all of the supplies and the ultrasound.
- Perform a verbal time-out with the PACU nurse, refer to the surgical consent for laterality.

Wards

- APS will follow all total knee arthroplasties and will place postoperative analgesia orders once the patient is evaluated in PACU.
- APS will follow only total hip arthroplasty patients with chronic pain, at the discretion of the surgical team.
- Post-Op Regimen
  - Acetaminophen 1 g PO q6h if ≥ 50 kg, 650 mg if < 50 kg, 500 mg in patients with liver dysfunction (including cirrhotic patients).
  - Ketorolac 30 mg IV q6h on POD#0 until midnight. Meloxicam 15 mg PO daily starting on POD #1. Held if Cr ≥ 1.5 mg/dL, history of active peptic ulcer disease, recent GI bleed, significant CAD or recent CABG, congestive heart failure (EF < 35%), severe hypovolemia, or bleeding disorder/anticoagulated.
  - Gabapentin 300 mg PO TID. Held if patient ≥ 75 years of age, history of dementia, or at risk for delirium. If the patient is on Gabapentin or Pregabalin at home, you can administer the home dosage or the dosage listed above, whichever one that is higher.
  - PO opioid of choice, tailored to the patient. Titrate to effect. Avoid IV opioids.

Work-Flow

First Case:

- Consent patient for regional anesthesia and spinal/epidural anesthesia in pre-op holding.
- Pre-op holding nurse, surgeon, anesthesiologist, and circulating nurse should plan to check-in the patient in an efficient manner to allow for the initiation of the spinal/CSE technique at 7 am.
- If all parties complete their tasks by 7:10 am, spinal anesthetic will be placed in pre-op holding. Anesthesia team will check with circulator before rolling back to the operating room.
- If all parties do NOT complete their tasks by 7:10 am, the patient will be taken to the operating room at 7:20 am and the spinal anesthetic will be placed.
- Prior to beginning the pre-op spinal anesthetic, a time-out will occur with the pre-op holding nurse. This constitutes a hand-off of care to the anesthesia team. This results in a documentation of vital signs into the record by the anesthesia team. As long as a second provider is present, the pre-op nurse does not have to be present after the time-out procedure.
- Two people present at all times (anesthesiologist + one other provider) during placement of spinal anesthetic. One other provider could be an APC/Trainee, APS Nurse (Page the "Regional Pain" pager), or the pre-op nurse. Utilize the nurse only as a last-resort due to the shortage of pre-op nurses.
- One person present at all times after the spinal anesthetic has been administrated in order to monitor the patient until he/she is transported to the OR. This could be the anesthesiologist, APC/trainee, APS nurse or the pre-op nurse. Utilize the nurse only as a last-resort due to the shortage of pre-op nurses.
- Anesthesia providers will check with the circulator prior to taking the patient to the OR.
- Total Knee Arthroplasties: page the "Regional Pain" pager (405-2903) when the patient is being taken to PACU

Subsequent Cases:

- When the surgeon places the knee/hip implant, the anesthesia provider in the room will alert the anesthesiologist, who will ask the front desk to call for the next patient.
- As soon as the surgeon leaves the room, the circulator will call the orthopaedic nursing lead. The nursing lead will either relieve the circulator so he/she can evaluate the next patient or the nursing lead will evaluate the next patient and give report to the circulator.
- The attending anesthesiologist will evaluate the next patient in a timely fashion in order to allow for spinal placement during the closure of the previous patient or as the previous patient is being transported to PACU.