EUHM SAME DAY JOINT PROTOCOL

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Summary

- **Goals:** To employ anesthetic techniques that control pain and facilitate working with PT within an hour of PACU arrival for our outpatient THAs and TKAs

- **Same day joint patients** will usually have “SDJ” or “same day” in the comments section on our SurgiNet perioperative tracking board. If the case is a primary joint replacement and nothing has been notated in the comments section, please discuss discharge plan with surgeon in POHA.

- **Peri-operatively,** continue to encourage patient regarding same day discharge and educate patient on post-op pain expectations

- **Pre-op meds:** Acetaminophen, Celebrex, Gabapentin/Lyrica, Scopolamine patch/Emend

- **Intra-op:** Spinal without additives or CSE unless contraindicated (Exception: Dr. Buggs’s anterior hip surgery - GA with muscle relaxant)
  - Oskouei/Reimer: lidocaine PF 50-100mg or hyperbaric bupivacaine 7.5-9mg
  - Kaiser: hyperbaric bupivacaine 7.5-9mg +/- CSE
  - Other meds: TXA, decadron, ketorolac, zofran

- **PACU:**
  - 500ml-1000ml crystalloid bolus or 250ml albumin (if cardiac or renal issues) on arrival to PACU to continue to replace NPO and surgical deficits to reduce nausea, hypotension, and PACU/PT delays
  - Avoid narcotics. If narcotics needed, consider lower dose
  - Sign out: **AFTER** patient completes PT in case patient fails PT and needs intervention such as pain medication and/or fluid bolus for nausea or hypotension
**Oskouei’s Same Day Joint Preferences**

**Pre-op**
- Acetaminophen 975mg po
- Gabapentin
- Celebrex
- Scopolamine patch if under 70 yo or Emend

**Intra-op**
- Spinal unless contraindicated. If unsure of surgical length, consider CSE and dosing epidural with lidocaine 2% PF if needed.
  - **Spinal Lidocaine 2% PF 50-100mg (**Oskouei’s preference**)**
    - This protocol is used at Emory University Ortho Spine Hospital (EUOSH) only if pt is able to receive toradol **AND** decadron 8mg IV intra-op (if have CKD or diabetic on meds, typically not given a lidocaine spinal -> low dose hyperbaric marcaine spinal)
      - Dosing “graded” to height: 50mg for pts 5ft or less, 100mg for those 6ft+. Average dose about 70-80mg
      - Decadron serves as PONV prophylaxis and to prolong post-op analgesia and sensory block of neuraxial and peripherally used local anesthetics
    - The literature reports higher risk of TNS with lidocaine spinals than other local anesthetics. Overall risk = 13% (Bupivacaine risk = 2%). All locals have risk of TNS. Intrathecal chloroprocaine and mepivacaine have same TNS risk as lidocaine.
  - Use at your own discretion
    - **Spinal Marcaine 0.75% (NO ADDITIVES – even fentanyl can prolong duration)**
      - Consider what you would give for a c-section (T4 level) and **reduce amount**
        - Total knee dosage: 1-1.4ml (typically 1.0-1.2ml, depending on patient height and age)
        - Total hip dosage: 0.8 -1.4ml (typically 1.0 ml)
      - Consider laying patient on surgical side for 5-7min after spinal placement
- If spinal contraindicated or unable to access space, consider GA with LMA for TKA
- **Sedation**
  - Propofol infusion, or
  - Precedex infusion w/small ketamine boluses if h/o chronic pain or opioid tolerant
- **Other meds**
  - Toradol 15mg (over 70yo) or 30mg (under 70yo) IV at closing if not already given
  - Zofran IV at end of procedure
  - Oskouei injects periarticular local anesthetic at the end of case
- **Fluid**
  - Optimize fluid status by replacing NPO and surgical deficits.
Oskouei’s Same Day Joint Preferences (cont’d)

PACU
- Consider 500ml-1L crystalloid fluid bolus (or 250ml albumin if cardiac or renal issues) on arrival to PACU if case too short to replace fluid deficit, if no cardiac or renal contraindications. Patients that are under fluid resuscitated tend to experience orthostatic hypotension, nausea, and/or headache, which prolong PACU stay and prevent work with PT.
- Block – adductor canal catheter for TKA (often done by our Acute Pain Service)
- Consider robaxin (methocarbamol) 1000mg IV given over 15 min x1 prn for pain
- Consider IV Tylenol depending on timing of pre-op dose
- Fentanyl IV (small dose) or Dilaudid IV 0.25-0.5mg prn - try to limit narcotics as much as possible so patient may be alert for PT

Reimer’s Same Day Joint Preferences

Pre-op
- Acetaminophen 975mg po
- Gabapentin
- Celebrex
- Scopolamine patch if under 70 yo or Emend
- Reimer TKA SDJ patients do NOT get an adductor canal block. Reimer injects periarticular local only

Intra-op
- Spinal unless contraindicated. If unsure of surgical length, consider CSE and dosing epidural with lidocaine 2% PF if needed.
  o Spinal Lidocaine 2% PF 50-100mg (*Oskouei’s preference*)
    ▪ This protocol is used at Emory University Ortho Spine Hospital (EUOSH) only if pt is able to receive toradol AND decadron 8mg IV intra-op (if have CKD or diabetic on meds, typically not given a lidocaine spinal -> low dose hyperbaric marcaine spinal)
      • Dosing “graded” to height: 50mg for pts 5ft or less, 100mg for those 6ft+ Average dose about 70-80mg
      • Decadron serves as PONV prophylaxis and to prolong post-op analgesia and sensory block of neuraxial and peripherally used local anesthetics
    ▪ The literature reports higher risk of TNS with lidocaine spinals than other local anesthetics. Overall risk = 13% (Bupivacaine risk = 2%). All locals have risk of TNS. Intrathecal chloroprocaine and mepivacaine have same TNS risk as lidocaine
    ▪ Use at your own discretion
  o Spinal Marcaine 0.75% (NO ADDITIVES – even fentanyl can prolong duration)
    ▪ Consider what you would give for a c-section (T4 level) and reduce amount
      • Total knee dosage: 1-1.4ml (typically 1.0-1.2ml, depending on patient height and age)
      • Total hip dosage: 0.8 -1.4ml (typically 1.0 ml)
    ▪ Consider laying patient on surgical side for 5-7min after spinal placement
- If spinal contraindicated or unable to access space, consider GA with LMA for TKA
**Reimer’s Same Day Joint Preferences (cont’d)**

- **Sedation**
  - Propofol infusion, or
  - Precedex infusion w/small ketamine boluses if h/o chronic pain or opioid tolerant
- **Other meds**
  - Toradol 15mg (over 70yo) or 30mg (under 70yo) IV at closing if not already given
  - Zofran IV at end of procedure
- **Fluid**
  - Optimize fluid status by replacing NPO and surgical deficits.

**PACU**

- Consider 500ml-1000ml crystalloid fluid bolus (or 250ml albumin if cardiac or renal issues) on arrival to PACU if case too short to replace fluid deficit, if no cardiac or renal contraindications. Patients that are under fluid resuscitated tend to experience orthostatic hypotension, nausea, and/or headache, which prolong PACU stay and prevent work with PT. Several patients end up being admitted instead of discharged same day due to this reason.
- Consider robaxin (methocarbamol) 1000mg IV given over 15 min x1 prn for pain
- Consider IV Tylenol depending on timing of pre-op dose
- Fentanyl IV (small dose) or Dilaudid IV 0.25-0.5mg prn in Phase 1 - try to limit narcotics as much as possible so patient may be alert for PT

**Boswell’s Same Day Joint Preferences**

**Pre-op**

- Acetaminophen 975mg po
- **Lyrica** *Boswell’s preference over gabapentin due to evidence that suggests gabapentin is ineffective in SDJ* Available in pre-op Omnicell in 25mg and 100mg caps
  - Age 18-50: 150mg po
  - Age 51-70: 75mg po
- Celebrex
- Scopolamine patch if under 70 yo or Emend

**Intra-op**

- Spinal unless contraindicated. If unsure of surgical length, consider CSE and dosing epidural with lidocaíne 2% PF if needed.
  - Spinal Marcaine 0.75% (NO ADDITIVES – even fentanyl can prolong duration).
    - Consider what you would give for a c-section (T4 level) and **reduce amount**
      - Total knee dosage: 1-1.4ml (typically 1.0-1.2ml, depending on patient height and age)
      - Total hip dosage: 0.8 -1.4ml (typically 1.0 ml)
    - Consider laying patient on surgical side for 5-7min after spinal placement
- If spinal contraindicated or unable to access space, consider GA with LMA for TKA
**Boswell’s Same Day Joint Preferences (cont’d)**

- **Sedation**
  - Propofol infusion, or
  - Precedex infusion w/small ketamine boluses if h/o chronic pain or opioid tolerant
- **Other meds**
  - *Kaiser preference* Decadron 4mg IV at case start for anti-inflammatory benefits unless diabetic
  - Toradol 15mg (over 70yo) or 30mg (under 70yo) IV at closing – **discuss with Boswell prior to administration**
  - Zofran IV at end of procedure
- **Fluid**
  - Optimize fluid status by replacing NPO and surgical deficits.

**PACU**

- Consider 500ml-1L crystalloid fluid bolus (or 250ml albumin if cardiac or renal issues) on arrival to PACU if case too short to replace fluid deficit, if no cardiac or renal contraindications. Patients that are under fluid resuscitated tend to experience orthostatic hypotension, nausea, and/or headache, which prolong PACU stay and prevent work with PT. Several patients end up being admitted instead of discharged same day due to this reason.
- Consider robaxin (methocarbamol) 1000mg IV given over 15 min x1 prn for pain
- Consider IV TYLENOL depending on timing of pre-op dose
- Fentanyl IV (small dose) or Dilaudid IV 0.25-0.5mg prn in Phase 1 - try to limit narcotics as much as possible so patient may be alert for PT

**Buggs’s Same Day Joint Preferences**

**Pre-op**

- Acetaminophen 975mg po
- Gabapentin
- Celebrex
- Scopolamine patch if under 70 yo or Emend
- Adductor canal block for TKA, typically performed by Acute Pain Service

**Intra-op**

- **Anterior total hip surgery – GA with muscle relaxant – minimal narcotics**
  - Total knee replacement – Buggs ok with spinal or GA
    - Single shot spinal or consider CSE if unsure of surgical length and dosing epidural with lidocaine 2% PF if needed.
    - Spinal Marcaine 0.75% (NO ADDITIVES – even fentanyl can prolong duration).
      - Consider what you would give for a c-section (T4 level) and **reduce amount**
        - Total knee dosage: 1-1.4ml (typically 1.0-1.2ml, depending on patient height and age)
        - Total hip dosage: 0.8 -1.4ml (typically 1.0 ml)
      - Consider laying patient on surgical side for 5-7min after spinal placement
**Buggs’s Same Day Joint Preferences (cont’d)**

- **Sedation**
  - Propofol infusion, or
  - Precedex infusion w/small ketamine boluses if h/o chronic pain or opioid tolerant
- **Other meds**
  - *Kaiser preference* Decadron 4mg IV at case start for anti-inflammatory benefits unless diabetic
  - Toradol 15mg (over 70yo) or 30mg (under 70yo) IV at closing
  - Zofran IV at end of procedure
- **Fluid**
  - Optimize fluid status by replacing NPO and surgical deficits.

**PACU**

- Consider 500ml-1L crystalloid fluid bolus (or 250ml albumin if cardiac or renal issues) on arrival to PACU if case too short to replace fluid deficit, if no cardiac or renal contraindications. Patients that are under fluid resuscitated tend to experience orthostatic hypotension, nausea, and/or headache, which prolong PACU stay and prevent work with PT. Several patients end up being admitted instead of discharged same day due to this reason.
- Early ambulation is key to reducing pain after anterior total hip surgery. It has been observed in our PACU that ambulating early eases pain often times better than IV narcotics
- Consider robaxin (methocarbamol) 1000mg IV given over 15 min x1 prn for pain
- Consider IV Tylenol depending on timing of pre-op dose
- Minimal narcotics only if absolutely necessary
  - Fentanyl IV (small dose) or Dilaudid IV 0.25mg prn in Phase 1

**Morris’s Same Day Joint Preferences**

**Pre-op**

- Acetaminophen 975mg po
- Gabapentin — discuss with Morris prior to administration if patient has OSA or STOP-BANG > 3
- Celebrex
- Scopolamine patch if under 70 yo or Emend
- Block – adductor canal block for TKA (often done in pre-op by our Acute Pain Service)

**Intra-op**

- Spinal unless contraindicated. If unsure of surgical length, consider CSE and dosing epidural with lidocaine 2% PF if needed.
  - Spinal Marcaine 0.75% (NO ADDITIVES – even fentanyl can prolong duration).
    - Consider what you would give for a c-section (T4 level) and reduce amount
      - Total knee dosage: 1-1.4ml (typically 1.0-1.2ml, depending on patient height and age)
      - Total hip dosage: 0.8 -1.4ml (typically 1.0 ml)
    - Consider laying patient on dependent/surgical side for 5-7min after spinal placement
- If spinal contraindicated or unable to access space, consider GA with LMA for TKA
Morris’s Same Day Joint Preferences (cont’d)

- Sedation
  - Propofol infusion, or
  - Precedex infusion w/small ketamine boluses if h/o chronic pain or opioid tolerant
- Other meds
  - *Kaiser preference* Decadron 4mg IV at case start for anti-inflammatory benefits unless diabetic
  - Toradol 15mg (over 70yo) or 30mg (under 70yo) IV at closing
  - Zofran IV at end of procedure
- Fluid
  - Optimize fluid status by replacing NPO and surgical deficits.

PACU

- Consider 500ml-1L crystalloid fluid bolus (or 250ml albumin if cardiac or renal issues) on arrival to PACU if case too short to replace fluid deficit, if no cardiac or renal contraindications. Patients that are under fluid resuscitated tend to experience orthostatic hypotension, nausea, and/or headache, which prolong PACU stay and prevent work with PT. Several patients end up being admitted instead of discharged same day due to this reason.
- Consider robaxin (methocarbamol) 1000mg IV given over 15 min x1 prn for pain
- Consider IV Tylenol depending on timing of pre-op dose
- Fentanyl IV (small dose) or Dilaudid IV 0.25-0.5mg prn in Phase 1 - try to limit narcotics as much as possible so patient may be alert for PT