

Total Joint Arthroplasty: Enhanced Recovery After Surgery (ERAS) Protocols

Banner University Medical Center Phoenix

Pre-operative: (*within 2 hours of surgical start*)

- Tylenol 1000mg PO
- Neurontin 300 mg PO
- Celebrex 400mg PO (or Mobic 15mg PO if sulfa allergy)
- Avoid benzodiazepines if able
- 1L crystalloid IV bolus (if no clinical contraindications)

- SPINAL ALWAYS PREFERRED for primary knee and hip procedures
 - Primary (anticipated case time 90 minutes: mepivacaine 1.5%: 3.5mL for patients 5 to 6 ft tall. 4mL for patients over 6 ft, 3mL for patients under 5 ft. All spinals without opioids
 - For revision knee and hip procedures SPINAL (consider bupivacaine 0.75%) or GA to be discussed

Knee Replacement Procedures (partial, total or revision)

- Adductor canal peripheral nerve block (15mL to 20mL total volume)
- i-PACK peripheral nerve block (not standard, only on request)
- NO FEMORAL NERVE block for any procedure

Hip Replacement

- No regional blocks for primary hip arthroplasty

Intra-operative

- antibiotic prophylaxis
- consider low dose propofol gtt
- avoidance of opioids if able
- maintain normothermia (forced air warming)/normovolemia
- TXA 1g IVP prior to incision, TXA 1g IVP at start of closure
- PONV prophylaxis

Post-operative

- standard PACU orders
- If patient pain uncontrolled, PACU nursing staff to contact orthopedics team

References:

1. Li WT, Bell KL, Yayac M, Barmann JA, Star AM, Austin MS. A Postdischarge Multimodal Pain Management Cocktail Following Total Knee Arthroplasty Reduces Opioid Consumption in the 30-Day Postoperative Period: A Group-Randomized Trial. *J Arthroplasty*. 2021 Jan;36(1):164-172.e2. doi: 10.1016/j.arth.2020.07.060. Epub 2020 Jul 30. PMID: 33036845.
2. Feng JE, Mahure SA, Waren DP, Lajam CM, Slover JD, Long WJ, Schwarzkopf RM, Macaulay WB, Davidovitch RI. Utilization of a Novel Opioid-Sparing Protocol in Primary Total Hip Arthroplasty Results in Reduced Opiate Consumption and Improved Functional Status. *J Arthroplasty*. 2020 Jun;35(6S):S231-S236. doi: 10.1016/j.arth.2020.02.009. Epub 2020 Feb 12. PMID: 32139187.
3. Karam JA, Schwenk ES, Parvizi J. An Update on Multimodal Pain Management After Total Joint Arthroplasty. *J Bone Joint Surg Am*. 2021 Sep 1;103(17):1652-1662. doi: 10.2106/JBJS.19.01423. PMID: 34232932.