Post-Operative Pain Management Protocol v3.2

1. Purpose and Scope

This protocol establishes standardized pain management procedures for all post-surgical patients at Memorial Clinical Center. It applies to all surgical departments including orthopedics, general surgery, cardiothoracic surgery, and neurosurgery. The goal is to achieve adequate pain control (NRS score below 4) within 2 hours of recovery while minimizing opioid-related adverse events.

2. Initial Assessment

All post-operative patients must receive a pain assessment using the Numeric Rating Scale (NRS 0-10) within 15 minutes of arrival in the post-anesthesia care unit (PACU). Reassessment is required every 30 minutes until pain is controlled (NRS < 4), then every 4 hours during the first 24 hours. Document pain location, quality, intensity, and aggravating or relieving factors. For patients unable to self-report, use the Behavioral Pain Scale (BPS).

3. Multimodal Analgesia - First Line

Administer acetaminophen 1000mg intravenously every 6 hours as the foundation of multimodal therapy. Begin within 1 hour post-operatively unless contraindicated by hepatic impairment (ALT > 3x ULN) or documented allergy. Supplement with ketorolac 15-30mg IV every 6 hours for 48 hours maximum in patients without renal impairment (eGFR > 60), active bleeding risk, or history of peptic ulcer disease. This combination reduces opioid requirements by 30-40%.

4. Opioid Management

For moderate to severe pain (NRS 5-7), administer morphine 2-4mg IV every 3-4 hours as needed, or hydromorphone 0.2-0.6mg IV every 3-4 hours for patients with morphine intolerance. For severe pain (NRS 8-10), initiate patient-controlled analgesia (PCA) with morphine: demand dose 1mg, lockout interval 8 minutes, 4-hour maximum 30mg. Monitor respiratory rate, sedation level (Pasero Opioid Sedation Scale), and oxygen saturation continuously for the first 24 hours. Naloxone 0.04mg IV must be available at bedside.

5. Knee Replacement Specific Protocol

For total knee arthroplasty patients, add the following to the standard multimodal regimen: Adacel nerve block with ropivacaine 0.2% continuous infusion at 6mL/hr for 48 hours. Begin cryotherapy within 2 hours post-operatively, applying for 20 minutes every 2 hours during waking hours. Initiate continuous passive motion (CPM) machine on post-operative day 1, starting at 0-40 degrees and advancing 10 degrees daily as tolerated. Target range of motion: 0-90 degrees by discharge.

6. Transition to Oral Medications

Transition from IV to oral analgesics when the patient tolerates oral intake and pain is controlled (NRS < 4) on current regimen. Standard oral regimen: acetaminophen 650mg every 6 hours plus ibuprofen 400mg every 8

hours with food. For breakthrough pain: oxycodone 5-10mg every 4-6 hours as needed. Provide no more than a 3-day supply of opioids at discharge with clear tapering instructions. Schedule follow-up pain assessment within 7 days of discharge.

7. Monitoring and Escalation

If pain remains uncontrolled (NRS >= 7) after 2 hours of standard therapy, consult the Acute Pain Service. Red flags requiring immediate escalation: respiratory rate below 8 breaths per minute, oxygen saturation below 90%, Pasero sedation scale score of 3 or higher, signs of compartment syndrome (increasing pain despite adequate analgesia, paresthesias, pallor), or suspected allergic reaction. All adverse events must be reported in the electronic health record within 1 hour.