

The University of Arkansas for Medical Sciences
ACS Clinical Practice Management Guideline

SUBJECT: Pain Multimodal Management Guideline

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PURPOSE: To provide guidelines for managing acute pain via a multi-modal approach that improves outcomes while minimizing adverse events related to opioids

DEFINITIONS:

Acute Pain: Any pain suffered directly from soft tissue or bony damage sustained through a traumatic injury or operation.

Multi-modal therapy: Multiple drugs are employed simultaneously to mitigate some of the more severe adverse effects associated with excessive dosing, allowing each medication to exhibit its optimal characteristics and provide synergistic effects.

INITIAL SCREENING:

When determining a proper multimodal treatment plan for all patients suffering from acute pain, one must consider age, weight, allergies, renal/hepatic function, and prior opioid use. Based on the patient's response, dose adjustments may be necessary. Multimodal pain management therapy should be initiated as early as possible.

- Do not restart home analgesic medications, but consider them when initiating inpatient dosing
 - o Perform MME conversion; starting doses should be within 10-20% of chronic doses.
- Multi-modal therapy should be initiated in the ED and continued throughout the hospital stay
- A physician should be called for unrelieved pain
- Transition from IV pain regimen to an oral regimen as soon as feasible
- All IV pain medications should be discontinued at least 24 hrs before discharge

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PROTOCOL

All Patients:

Tylenol

- Acetaminophen 975 mg PO q6 hrs (preferred)\
 - o *clear with attending for patients with Child's Class B and cirrhosis*
 - o if no oral or upper GI access: suppository 650 mg per rectum q6 hr

NSAIDs

- Ibuprofen 400-600 mg PO q6 hrs (max dose 2400 mg/24 hrs)
 - o *hold if eGFR<30*
 - o if no enteral access or complete bowel rest: Toradol 15mg q6-8 hr
 - o **limit to 3 weeks in patients with long bone or spinal fractures**
- *Can only be ordered/continued for 5 days max; do not renew order after 5 days of therapy

Breakthrough Pain (PRN)

- o Oxycodone (immediate-release) 5 mg PO or 5 ml Elixir (1mg/ml) via NG/NJ q4-6 hrs PRN
- o DO NOT ORDER Oxycodone 10mg unless the patient demonstrates a need for more than 5mg q4hr

Special Populations

Patients with Neuropathic or Extremity Pain

- **Gabapentinoids (discontinue if patient is somnolent)**
 - o Gabapentin 100-300 mg PO q8 hrs (may titrate up to max 1200 mg PO q8 hrs)
 - If renal dysfunction (eGFR<30): Gabapentin 100 mg q12 hr (max 400 mg q12 hr)

For Patients with Laparotomy, Thoracotomy, Spine Surgery, Muscle Pain or Spasm

- **Muscle relaxer**
 - o Methocarbamol (Robaxin) 500-1500mg q8 hrs
 - Consider lower doses for patients > 60 y/o and titrate up as tolerated

Refractory Pain (typically for chronic opioid users, at the discretion of the rounding attending)

- Schedule oxycodone 5mg q4-6 hr and order a separate prn 5mg oxycodone q4 hr
- Ketamine infusion
 - o *Avoid if poorly controlled cardiovascular disease, psychiatric history, or cirrhosis.*
 - o *Stop if the patient develops symptoms consistent with delirium*
 - o The patient must be monitored on H4, E4, or F4 (does not require progressive status).
 - The anesthesia pain team must manage all other patients requiring ketamine.
 - o Dosing: 0.1 to 0.25 mg/kg/hr continuous infusion (an initial bolus of 0.1-0.5 mg/kg can be provided by an attending physician who is present)
- Methadone 5 mg q8 hrs (may advance to 10mg at attending discretion)
 - o Only attempt in chronic opioid users
 - o Avoid if: respiratory issues (long half-life - 96 hrs) or elevated QTc (>500 msec)
 - o **Do not prescribe at discharge**

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Pain team consults for:

- Regional blocks
- Management of chronic pain patients (palliative care may also manage these patients)
- Ketamine continuous infusions **outside** of H4, E4, or F4

HOW TO PERSONALIZE MULTI-MODAL THERAPY:

- Always maintain a PRN pain medication (it does not have to be an opioid)
- Each morning, the number of PRN medications given should be determined:
 - If ALL allowable PRN medications were given and the patient is still having uncontrolled pain, schedule the PRN medication and add another PRN (e.g., an additional 5mg Oxycodone PRN q4-6 hrs)
 - If a few of the PRN medications were given, keep the same dosage
 - If NO PRN medications were given, remove that medication and make something else PRN (e.g., ibuprofen, Tylenol)
- Enlist the assistance of the APRNs, chief residents, team pharmacist, or the attending with prescribing pain medications until you are comfortable with this protocol

****Increasing levels of pain with dosing adjustments need to be reported to the attending physician on daily rounds.****

Discharge and Follow-up

At Discharge:

Do not prescribe medications if the patient has not been using them in the hospital

- Acetaminophen 975 mg PO q6 hrs (do not exceed 4 grams/24 hrs)
- Ibuprofen 600-800 mg PO q8 hrs (do not exceed 2.4 grams/24 hrs)
- Oxycodone 5 mg (Prescribe 3-5x the number used in the 24 hrs before discharge)
- Salonpas patches should be recommended if the patient benefits from using lidocaine patches during hospitalization (these are more affordable and can be found over the counter.)
- Gabapentin Rx for **only 14 days** (only if the patient was taking it before discharge)
 - Epic's default is 12 months – change this to 14 days!
- Methocarbamol (Robaxin) Rx for **15 days** (only if the patient was taking it before discharge)
 - Epic's default is 12 months – change this to 14 days!

At Follow-up Clinic:

- **NO** narcotic refills
- May consider 1-time refill of gabapentin/methocarbamol, OR until patient establishes with PCP
- If unrelieved or becomes chronic, the patient will need a referral to a specialty pain clinic

This guideline was prepared by the UAMS ACS Division based on a recent literature review. It is intended to support clinical decision-making and should be used at the discretion of the trauma team, as it is not a fixed policy or protocol.

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