UCMC – Liver Transplant Opioid Minimization (for narcotic naïve recipients)

Peri-Operative

Preoperative Clinic Visits	• Educational materials and surgeon discussion of pain management expectations
Preventative Analgesia (Day of Surgery in Pre-Op)	• Acetaminophen 975 mg PO • Gabapentin 300 mg PO
During Surgery	• Opioid sparing anesthesia • Inject 30 mL 0.25% bupivacaine into wound at beginning of case

Post-Operative (inpatient)[2]

Post-Operative Analgesia, POD#0	**Patient intubated or not yet alert & oriented upon arrival to SICU:** • Continue IV infusions per SICU team (fentanyl/midazolam) **Patient extubated and alert & oriented upon arrival to SICU:** • Hydromorphone intermittent IV injection or PCA • Acetaminophen 975 mg PO/NG Q8H • Gabapentin 100 mg PO/NG Q8H[1]

Post-Operative Analgesia, POD#1
 	
See order set: Post Liver TXP Pain Management
	• DC hydromorphone
	• Continue acetaminophen and gabapentin as above
	• Tramadol (if CrCl > 30): 50-100 mg PO Q6H PRN (50 mg if pain score 4-6, 100 mg if pain score 7-10)
	• Tramadol (if CrCl < 30): 50 mg PO Q6H PRN (pain scores 4-10), max 200 mg/day due to seizure potential
	• If pain refractory to max tramadol dose, consider adjunctive agents:
	  • Lidocaine patch (1-3 patches, per area affected) q24h—*preferred for incisional or other superficial pain*
	  • Muscle relaxant, e.g. methocarbamol 500-1000 mg PO Q8H or 500 mg IV Q6H[3] (*preferred for muscle pain/spasms)*
	  • Switch tramadol to oxycodone
	  • Hydromorphone IV

Bowel regimen	Start when diet advanced to clears or greater: • Miralax® 17 g PO daily • Senna-S 8.6-50 mg 1 tablet BID • Add additional agents if needed: e.g., bisacodyl supp daily PRN

[1]Hold for altered mental status; may titrate dose up as tolerated; adjust dose for renal dysfunction

[2]Avoid ketorolac and other NSAIDs due to risk of nephrotoxicity

[3]Avoid IV methocarbamol in renal dysfunction

Post-Operative (at Discharge)

Multimodal Pain Regimen	• Acetaminophen 975mg PO TID, gabapentin 100 mg PO TID, tramadol PRN (or oxycodone if tramadol was ineffective) • Reassess and individualize based on current needs • Include adjunctive agents when needed. If pain is minimal, consider no tramadol and/or reduced multimodal pain regimen • Standard dispense quantities: 7 days tramadol/oxycodone, 30 days others
Pain Categories	*Assign each patient to 1 category based on their prescribed pain therapies at discharge* • Category A: Multimodal pain regimen with or without tramadol (+ adjunctive agents) • Category B: Multimodal pain regimen with oxycodone or other opioid (+ adjunctive agents) • Category N/A: non-opioid naïve
Bowel regimen	• Standard bowel regimen: Miralax® daily PRN and Senna-S BID PRN; patient may self-titrate to achieve soft BMs • Reassess and individualize based on current needs