

**The following content was supplied by the authors as supporting material and has not been copy-edited or verified by JBJS.**

**NYU ORTHOPEDICS DIVISION OF HAND SURGERY PAIN MANAGEMENT PROTOCOL**

Procedure	Pre-op	Day Before Surgery	Immediate Pre-op	Intra-op	PACU	Discharge
Standard Soft Tissue (e.g. Carpal Tunnel, de Quervains, trigger finger, isolated tendon, etc)	Patient education and expectation setting re: post-op pain	Answer any remaining questions Ibuprofen 600 mg	Analgesic options: ▪ APAP PO 1g	Local vs Regional anesthesia	Typically no pain meds given secondary to functioning regional or local anesthesia.	Outpatient:  APAP 1g PO BID Ibuprofen 600 TID Norco 5/325mg 0-6 pills
Minor Bone (e.g. isolated finger and metacarpal fractures)	Patient education and expectation setting re: post-op pain	Answer any remaining questions Ibuprofen 600 mg		Regional Anesthesia		Outpatient:  Ibuprofen 600 TID Percocet 5/325mg 10 pills (days 1-2) APAP 1g PO BID (after first two days)
Major Bone (e.g. multiple finger and metacarpal fractures or isolated distal radius, forearm or elbow fractures)	Patient education and expectation setting re: post-op pain	Answer any remaining questions Ibuprofen 600 mg		Regional Anesthesia		Outpatient:  Ibuprofen 600 TID Percocet 5/325mg 10 pills (days 1-2) APAP 1g PO BID (after first two days)

Additional Items:

1. Tylenol 1000 mg TID and Ibuprofen 600 Tid for all patients unless contraindicated. (GI precautions)
2. Pre-operative counseling on what pain to expect, and strategies for minimizing pain (elevate, ice, motion), Ibuprofen 600mg PO day before surgery at surgeons discretion.
3. Narcotic and other pain meds are e-prescribed before the surgery so the patient has a chance to pick them up and know what to expect
4. Patients with anxiety about pain receive counseling from the NYU integrative health service
5. If significant pain issues are identified preoperatively a formal pain management consult will be arranged

## NYU ORTHOPEDICS DIVISION OF PEDIATRIC ORTHOPEDICS PAIN MANAGEMENT PROTOCOL

Procedure	Pre-op	Day Before Surgery	Immediate Pre-op	Intra-op	PACU	Post-op	Discharge
<b>Outpatient Fracture Care of Soft Tissue Procedures</b>	N/A	N/A	Discuss regional block with anesthesia	<p>Ketorolac 0.5 mg/kg (unless asthmatic)</p> <p>.25% plain Marcaine into incision (if no block)</p>	<p>In patients &lt;4:</p> <p>Attempt repositioning, parental soothing, distraction first.</p> <p>PO Tylenol liquid</p> <p>In patients &gt;age 4:</p> <p><b>Mild pain (1-3):</b>  Repositioning, distraction  Ice (if no cast) – q10 min skin checks</p> <p><b>Moderate (4-6):</b>  IV Tylenol (15 mg/kg up to 750 mg) if not taking po  PO Tylenol if taking PO</p> <p><b>Severe (7-10):</b>  Check cast and perfusion. Call ortho team. If OK</p>	N/A	<p>Outpatient:</p> <p>Acetaminophen 1g PO BID  Ibuprofen 600 TID  Norco 5/325mg 0-6 pills</p>

					with team, Roxicodone 0.1mg/kg every 6 hours PRN		
<b>Pelvic Osteotomy / Long Bone Fractures</b>	Stop all NSAIDs for elective cases	N/A	Discuss epidural anesthesia with anesthesia	Same as above	Same as above	<p><b>Mild pain (1-3):</b> Repositioning, distraction Ice (if no cast) – q15 min skin checks</p> <p><b>Moderate (4-6):</b></p> <ul style="list-style-type: none"> <li>○ Patients that cannot tolerate pills <ul style="list-style-type: none"> <li>○ Toradol IV 0.5mg/kg every 6 hours for 2 days (No toradol in patients with asthma)</li> <li>○ Tylenol 10mg/kg every 6 hours</li> <li>○ Ibuprofen 10mg/kg every 6 hours beginning Post operative day 3</li> </ul> </li> <li>● Patients tolerating pills <ul style="list-style-type: none"> <li>○ Toradol IV 0.5mg/kg every 6 hours for 2 days</li> <li>○ Tylenol 325mg-500mg (10mg/kg PO every 6 hours)</li> <li>○ Ibuprofen 200mg-400mg (10mg/kg) PO every 6 hours beginning post operative day 3</li> </ul> </li> </ul> <p><b>For severe (7-10) breakthrough pain:</b></p>	Same as above  With attg approval, Roxicodone 0.1mg/kg every 8 hours PRN

						<ul style="list-style-type: none"> <li>○ Roxycodone 0.1mg/kg every 6 hours PRN</li> <li>○ Valium – May be added on patient to patient basis. 0.1mg/kg every 8 hours prn</li> </ul>	
<b>Cerebral Palsy (bony surgery)</b>	Stop all NSAIDs Continue outpatient Valium/Baclofen	N/A	Discuss epidural with anesthesia if no baclofen pump	Ketorolac 0.5 mg/kg (unless asthmatic)	Same as above  Valium 0.1mg/kg every 8hours prn for spasm	Same as above <b>All patients</b> on standing Valium	Same as above Valium 0.1mg/kg q8hrs x 2 wks

## NYU ORTHOPEDICS DIVISION OF ORTHOPEDIC TRAUMA PAIN MANAGEMENT PROTOCOL

Procedure	Pre-op	Day Before Surgery	Immediate Pre-op	Intra-op	PACU	Post-op	Discharge
<b>Upper Extremity Fractures</b>	<p>Continue NSAIDs</p> <p>Narcotics → Initiate Narcotic taper</p>	<p>Pre-op NSAIDs permitted Initiate Hydration Protocol</p> <p>Acetaminophen 1gm, oral, every 6-8 hours (not to exceed 4gm daily)</p> <p>Meloxicam 15mg. oral, daily</p>	None	<p>Regional + sedation</p> <p>Acetaminophen 1gm</p> <p>IV Ketorolac 30mg (15mg if &gt;65years of age and/or renal impairment)</p>	<p><b>Mild (1-3):</b> Ice therapy PRN (alternating 15 min on/off for skin evaluation)</p> <p><b>Moderate (4-6):</b> If tolerating oral, Tramadol 50mg oral, every 8 hours, PRN If not tolerating oral, Fentanyl 25mcg, IV, every 10 min for max of 3 doses, PRN (Administer only if resp rate &gt; 10)</p> <p><b>Severe (7-10):</b> If tolerating oral, Tramadol 100mg, oral, every 8 hours, PRN. If not tolerating oral, Fentanyl 50mcg, IV, every 10 min for max of 3 doses, PRN</p>	<p><b>Mild (1-3):</b> Ice therapy PRN (alternating 15 min on/off for skin evaluation)</p> <p><b>Moderate (4-6):</b> Tramadol 50mg oral, every 8 hours, PRN</p> <p><b>Severe (7-10):</b> Tramadol 100mg, oral, every 8 hours, PRN</p> <p><b>Breakthrough:</b> Oxycodone 5mg, oral, every 6 hours, PRN</p> <p><b>Standing:</b> Acetaminophen 1gm, oral, every 6-8 hours, not to exceed 4gm daily (Review liver function prior to administration)</p> <p>Ketorolac 30mg</p>	<p><b>Standing:</b> Acetaminophen 1gm, oral, every 6-8 hours, not to exceed 4gm total, (Total of 7-10 days)</p> <p>Meloxicam 15mg, oral, once daily (Aspirin 81mg, oral, once daily)</p> <p>Ice therapy PRN (alternating 20 min on/off)</p> <p>AVOID OXYCODONE RX IF POSSIBLE</p> <p><b>Breakthrough:</b> Tramadol 50mg oral, every 4-6 hours, PRN (24 tablets to be dispensed)</p>

						Inj, once daily in AM, starting POD1 (15mg >65years of age and/or renal impairment)  Pregabalin (Lyrica.) 50mg, oral every 8 hours (hold for sedation)	
<b>Hip fractures</b>	Continue NSAIDs	Pre-op NSAIDs permitted  Initiate Hydration Protocol  Acetaminophen 1gm, oral, every 6-8 hours (not to exceed 4gm daily)  Meloxicam 15mg. oral, Daily  Lovenox 40mg, on the evening before surgery	Meloxicam 15mg, oral	Spinal (opiate free)  Dexamethasone 10mg, IV  Fentanyl IV  Acetaminophen 1gm, IV	<b>Mild (1-3):</b> Ice therapy PRN (alternating 15 min on/off for skin evaluation)  <b>Moderate (4-6):</b> If tolerating oral, Tramadol 50mg oral, every 8 hours, PRN If not tolerating oral, Fentanyl 25mcg, IV, every 10 min for max of 3 doses, PRN (Administer only if resp rate > 10)  <b>Severe (7-10):</b> If tolerating oral, Tramadol 100mg, oral, every 8 hours, PRN. If not tolerating oral, Fentanyl 50mcg, IV, every 10 min for max of	<b>Mild (1-3):</b> Ice therapy PRN (alternating 15 min on/off for skin evaluation)  <b>Moderate (4-6):</b> Tramadol 50mg oral, every 8 hours, PRN <b>Severe (7-10):</b> Tramadol 100mg, oral, every 8 hours, PRN  <b>Severe (7-10):</b> Tramadol 100mg, oral, every 8 hours, PRN  <b>Breakthrough:</b> Oxycodone	<b>Standing:</b> Acetaminophen 1gm, oral, every 6-8 hours, not to exceed 4gm total, (Total of 7-10 days)  Meloxicam 15mg, oral, once Daily  Lovenox 40mg, Daily  AVOID OXYCODONE RX IF POSSIBLE  <b>Breakthrough:</b> Tramadol 50mg oral, every 4-6 hours, PRN (12 tablets to be dispensed)

					<p>3 doses, PRN (Administer only if resp rate &gt; 10)</p> <p><b>Breakthrough:</b> Oxycodone 5mg, oral, once PRN</p>	<p>5mg, oral, every 6 hours, PRN</p> <p><b>Standing:</b> Acetaminophen 1gm, oral, every 6-8 hours, not to exceed 4gm daily (Review liver function prior to administration)</p> <p>Ketorolac 30mg Inj, once daily in AM, starting POD1 (15mg &gt;65years of age and/or renal impairment)</p> <p>Pregabalin (Lyrica.) 50mg, oral every 8 hours (hold for Sedation)</p>	
<p><b>Lower Extremity Fractures</b></p>	<p>Continue NSAIDs</p> <p>Narcotics → Initiate Narcotic taper</p>	<p>Pre-op NSAIDs Permitted</p> <p>Initiate Hydration Protocol</p> <p>Acetaminophen 1gm, oral, every 6-8 hours (not to exceed 4gm)</p>	<p>None</p>	<p>Regional + sedation</p> <p>Acetaminophen 1gm, IV</p> <p>Ketorolac 30mg IV, (15mg &gt;65years of age and/or renal impairment)</p>	<p><b>Mild (1-3):</b> Ice therapy PRN (alternating 15 min on/off for skin evaluation)</p> <p><b>Moderate (4-6):</b> If tolerating oral, Tramadol 50mg oral, every 8 hours, PRN</p>	<p><b>Mild pain (1-3):</b> Ice therapy PRN (alternating 15 min on/off for skin evaluation)</p> <p><b>Moderate (4-6):</b> Tramadol 50mg oral, every 8</p>	<p><b>Standing:</b> Acetaminophen 1gm, oral, every 6-8 hours, not to exceed 4gm total, (Total of 7-10 days)</p> <p>Meloxicam 15mg, oral, once</p>

		<p>daily)</p> <p>Meloxicam 15mg. oral, daily</p>			<p>If not tolerating oral, Fentanyl 25mcg, IV, every 10 min for max of 3 doses, PRN (Administer only if resp rate &gt; 10)</p> <p><b>Severe (7-10):</b> If tolerating oral, Tramadol 100mg, oral, every 8 hours, PRN If not tolerating oral, Fentanyl 50mcg, IV, every 10 min for max of 3 doses, PRN</p>	<p>hours, PRN</p> <p><b>Severe (7-10):</b> Tramadol 100mg, oral, every 8 hours, PRN</p> <p><b>Breakthrough:</b> Oxycodone 5-10mg, oral, every 6 hours, PRN</p> <p><b>Standing:</b> Acetaminophen 1gm, oral, every 6-8 hours, not to exceed 4gm daily (Review liver function prior to administration)</p> <p>Ketorolac 30mg Inj, once daily in AM, starting POD1 (15mg &gt;65years of age and/or renal impairment)</p> <p>Pregabalin (Lyrica.) 50mg, oral every 8 hours (hold for</p>	<p>Daily</p> <p>(Aspirin 81mg, oral, once daily)</p> <p>Ice therapy PRN (alternating 20 min on/off)</p> <p><b>Breakthrough:</b> Oxycodone 5-10mg, oral, every 6 hours, PRN</p>
--	--	--	--	--	---	--	--



						Sedation)	
--	--	--	--	--	--	-----------	--

## NYU ORTHOPEDICS DIVISION OF SHOULDER/ELBOW SURGERY PAIN MANAGEMENT PROTOCOL

Procedure	Pre-op	Day Before Surgery	Immediate Pre-op	Intra-op	PACU	Post-op	Discharge
<p style="text-align: center;"><b>Shoulder Arthroscopy and Subacromial Decompression</b></p> <p style="text-align: center;"><b>Elbow Arthroscopy</b></p>	Patient education and expectation setting re: post-op pain	May continue NSAIDs PRN Hydrate adequately with water	Tylenol 1000 mg PO  Meloxicam 15 mg	Interscalene nerve block + sedation  Bupivacaine (0.5%)  Adjuvants: dexamethasone IV 4-10 mg as per anesthesia  Interscalene nerve block catheter: narcotic dependent patients with high narcotic requirements)	<p><b>Mild (1-3):</b> Ice pack</p> <p><b>Moderate (4-6):</b> Fentanyl 25mg IV or tramadol 50mg 1 tab PO</p> <p><b>Severe (7-10):</b> Fentanyl 50mg IV or Tramadol 50mg 2 tabs PO</p> <p>No Toradol in the PACU</p>	N/A	<p>50 mg Tramadol 1-2 tabs PO Q4-6h PRN breakthrough (20 tabs)</p> <p>Tylenol 500mg 2 tabs PO q8 → 3 g total (7-10 days)</p> <p>15 mg Meloxicam QD for 7 days then PRN (30 tabs) or 600 mg Motrin q6-8h for 7 days then PRN (60 tabs)</p> <p>Ice therapy</p> <p><b>Breakthrough:</b> If necessary, oxycodone 5 mg every 6 hours as needed (12 tabs)</p>

<p><b>Shoulder Arthroscopy and Labral Repair</b></p>	<p>Patient education and expectation setting re: post-op pain</p>	<p>May continue NSAIDs PRN Hydrate adequately with water</p>	<p>Tylenol 1000 mg PO  Meloxicam 15 mg</p>	<p>Interscalene nerve block + sedation  Bupivacaine (0.5%)  Adjuvants: dexamethasone IV 4-10 mg as per anesthesia  Interscalene nerve block catheter: narcotic dependent patients with high narcotic requirements)</p>	<p><b>Mild (1-3):</b> Ice pack  <b>Moderate (4-6):</b> Fentanyl 25mg IV or tramadol 50mg 1 tab PO  <b>Severe (7-10):</b> Fentanyl 50mg IV or Tramadol 50mg 2 tabs PO  No Toradol in the PACU</p>	<p>N/A</p>	<p>50 mg Tramadol 1-2 tabs PO Q4-6h PRN breakthrough (20 tabs)  Tylenol 500mg 2 tabs PO q8 → 3 g total (7-10 days)  15 mg Meloxicam QD for 7 days then PRN (30 tabs) or 600 mg Motrin q6-8h for 7 days then PRN (60 tabs)  Ice therapy  <b>Breakthrough:</b> If necessary, oxycodone 5 mg every 6 hours as needed (12 tabs)</p>
<p><b>Shoulder Arthroscopy and distal clavicle resection</b>  <b>AC Joint Reconstruction</b>  <b>Rotator Cuff Repair</b></p>	<p>Patient education and expectation setting re: post-op pain</p>	<p>May continue NSAIDs PRN Hydrate adequately with water</p>	<p>Tylenol 1000 mg PO  Meloxicam 15 mg</p>	<p>Interscalene nerve block + sedation  Bupivacaine (0.5%)  Adjuvants: dexamethasone IV 4-10 mg as per anesthesia  Interscalene nerve block catheter: narcotic dependent patients with high</p>	<p><b>Mild (1-3):</b> Ice pack  <b>Moderate (4-6):</b> Fentanyl 25mg IV or tramadol 50mg 1 tab PO  <b>Severe (7-10):</b> Fentanyl 50mg IV or Tramadol 50mg 2 tabs PO</p>	<p>N/A</p>	<p>50 mg Tramadol 1-2 tabs PO Q4-6h PRN breakthrough (24 tabs)  Tylenol 500mg 2 tabs PO q8 → 3 g total (7-10 days)  15 mg Meloxicam QD for 7 days then PRN (30 tabs) or 600 mg Motrin q6-8h for</p>

				narcotic requirements)	No Toradol in the PACU		7 days then PRN (60 tabs)  Ice therapy  <b>Breakthrough:</b> If necessary, oxycodone 5 mg every 6 hours as needed (20 tabs)  <b>Optional:</b> Lyrica (50 mg HS x 30 days) or Gabapentin (300 mg HS) for patients who have sleeping issues on recliner
<b>Total Shoulder Arthroplasty</b>	Patient education and expectation setting re: post-op pain	N/A	Tylenol 1000 mg PO Celebrex 200 mg PO Lyrica 50 mg PO	Interscalene nerve block + sedation  Bupivacaine (0.5%)  Adjuvants: dexamethasone IV 4-10 mg as per anesthesia  Interscalene nerve block catheter: narcotic dependent patients with high narcotic requirements)  Intraoperative	Ice therapy	<b>Standing:</b> Meloxicam 15 mg daily  Tylenol 1000 mg oral every 8 hours  Lyrica 50 mg daily  <b>Moderate (4-6):</b> Tramadol 50 mg every 8 hours  <b>Severe (7-10):</b> Tramadol 100	<b>Standing:</b> Meloxicam 15 mg daily x7 days  Tylenol 1000 mg every 8 hours x7 days  Ice therapy  <b>Breakthrough:</b> Tramadol 50 mg every 8 hours (30 tabs maximum)  <b>Alternate breakthrough</b> (poor

				bupivacaine infiltration at the time of wound closure.		mg every 8 hours  <b>Breakthrough:</b> Oxycodone 5 mg every 6 hours PRN (first line)  Hydromorphone 2 mg every 8 hours PRN (alternative)	pain control, history of seizures, patients on SSRIs):  Oxycodone 5 mg every 6 hours (first line)  Hydromorphone 2 mg, every 8 hours (alternate)
--	--	--	--	---	--	--	--

## NYU ORTHOPEDICS DIVISION OF SPINE SURGERY PAIN MANAGEMENT PROTOCOL

Patient Population	Pre-op (Surgeon's Office)	Pre-op (Holding Room)	Intra-op	Post-op PACU	Post-op Floor	Discharge
Outpatient spine	Patient education and expectation setting re: post-op pain Pain Management consultation as needed*	APAP PO 1g Lyrica 50 mg Celebrex 200 mg	Ketamine bolus 0.5mg/kg up to a max dose of 50mg (after induction)	Opioids ordered per routine management based on clinical judgment (typically morphine for non-opioid-dependent patients and hydromorphone for opioid-dependent patients)  Pain consult PRN	Opioids ordered per routine management based on clinical judgment :  <b>Standing:</b> APAP 1g PO q8 hrs standing.  Zanaflex 2mg BID PRN	Outpatient:  Meloxicam: 15mg 7-10 days (Hold for fusions)  APAP: 1000 mg PO q 8 hours 7-10 days  Tramadol 50 (20 tabs) or Oxycodone 5 mg (25 tabs)
Inpatient Spine (IP procedures)	Patient education and expectation setting re: post-op pain Pain Management consultation as needed*		<b>BMI less than 35:</b> Lidocaine infusion 1.5mg/kg/hr  Ketamine bolus 0.5mg/kg up to a max dose of 50mg (after induction)  Ketamine infusion 0.25mg/kg/hr  <b>BMI greater than or equal to 35:</b> Lidocaine infusion 1mg/kg/hr		<b>Mild pain:</b> Ice  <b>Moderate pain:</b> Oxycodone 2.5 mg for moderate pain q 4 hours PRN  <b>Severe pain:</b> oxycodone 5mg for severe pain q4hrs PRN  <b>Breakthrough pain:</b> Oxycodone 5 mg q4h prn	Inpatient Fusion/Non-fusion, Opioid-naïve:  No NSAIDS (except for non-fusion) APAP: 1g PO q 8 hours 7-10 days Oxycodone or Hydrocodone: 5 -10 mg # 40 tabs  Zanaflex: 2 mg BID PRN (Muscle Spasm)  Lyrica if continued neuropathic pain
Inpatient Opioid Dependent	Patient education and expectation setting re: post-op pain Pain Management consultation*		Ketamine bolus 0.5mg/kg up to a max dose of 50mg (after induction)  Ketamine infusion 0.15mg/kg/hr		Titrate oxycodone up if necessary  Continue the periop multimodal regimen while in hospital which includes Lyrica, Celebrex	Inpatient fusion DC as per pain service

					(Nonfusion) Pain consult PRN	
--	--	--	--	--	---------------------------------	--

## NYU ORTHOPEDICS DIVISION OF ADULT RECONSTRUCTION PAIN MANAGEMENT PROTOCOL

Procedure	Pre-op	Day Before Surgery	Immediate Pre-op	Intra-op	PACU	Post-op	Discharge
<b>THA</b>	<p>Continue NSAIDs</p> <p>Narcotics → Initiate narcotic taper</p>	<p>Pre-op NSAIDs Permitted</p> <p>Initiate Hydration Protocol</p> <p>Acetaminophen 1gm, oral, every 6-8 hours (not to exceed 4gm daily)</p> <p>Meloxicam 15mg. oral, daily</p> <p>Aspirin 81mg, oral, on the evening before surgery</p>	<p>Meloxicam 15mg, oral</p>	<p>Spinal (opiate free)</p> <p>Dexamethasone 10mg, IV</p> <p>Fentanyl IV</p> <p>Acetaminophen 1gm, IV</p> <p>Liposomal Bupivacaine (Exparel.), Inj</p> <p>Cocktail: 40ml Epinephrine + Bupivacaine (0.25%w/v) + Ketorolac 15mg</p>	<p><b>Mild (1-3):</b> Ice therapy PRN (alternating 15 min on/off for skin evaluation)</p> <p><b>Moderate (4-6):</b> If tolerating oral, Tramadol 50mg oral, every 8 hours, PRN</p> <p>If not tolerating oral, Fentanyl 25mcg, IV, every 10 min for max of 3 doses, PRN (Administer only if resp rate &gt; 10)</p> <p><b>Severe (7-10):</b> If tolerating oral, Tramadol 100mg, oral, every 8 hours, PRN</p> <p>If not tolerating oral, Fentanyl 50mcg, IV, every 10 min for max of 3 doses, PRN</p>	<p><b>Standing:</b> Acetaminophen 1gm, oral, every 6-8 hours, not to exceed 4gm daily (Review liver function prior to administration)</p> <p>Ketorolac 30mg Inj, once daily in AM, starting POD1 (15mg &gt;65years of age and/or renal impairment)</p> <p>Pregabalin (Lyrica.) 50mg, oral every 8 hours (hold for sedation)</p> <p><b>Mild (1-3):</b> Ice therapy PRN (alternating 15 min on/off for skin evaluation)</p> <p><b>Moderate (4-6):</b></p>	<p><b>Standing:</b> Acetaminophen 1gm, oral, every 6-8 hours, not to exceed 4gm total, (Total of 7-10 days)</p> <p>Meloxicam 15mg, oral, once daily</p> <p>Aspirin 81mg, oral, twice daily</p> <p>AVOID OXYCODONE RX IF POSSIBLE</p> <p><b>Breakthrough:</b> Tramadol 50mg oral, every 4-6 hours, PRN (12 tablets to be dispensed)</p>



						Tramadol 50mg oral, every 8 hours, PRN  <b>Severe (7-10):</b> Tramadol 100mg, oral, every 8 hours, PRN  <b>Breakthrough:</b> Oxycodone 5mg, oral, every 6 hours, PRN	
TKA	Continue NSAIDs  Narcotics → Initiate narcotic taper	Pre-op NSAIDs Permitted  Initiate Hydration Protocol  Acetaminophen 1gm, oral, every 6-8 hours (not to exceed 4gm daily)  Meloxicam 15mg. oral, daily  Aspirin 81mg, oral, on the evening before surgery	Meloxicam 15mg, oral	Spinal (opiate free)  Dexamethasone 10mg, IV  Fentanyl IV  Acetaminophen 1gm, IV  Liposomal Bupivacaine (Exparel.), Inj  Cocktail: 40ml Epinephrine + Bupivacaine (0.25%w/v) + Ketorolac 15mg	<b>Mild (1-3):</b> Ice therapy PRN (alternating 15 min on/off for skin evaluation)  <b>Moderate (4-6):</b> If tolerating oral, Tramadol 50mg oral, every 8 hours, PRN  If not tolerating oral, Fentanyl 25mcg, IV, every 10 min for max of 3 doses, PRN (Administer only if resp rate > 10)  <b>Severe (7-10):</b> If tolerating oral, Tramadol 100mg, oral, every 8 hours, PRN	<b>Standing:</b> Acetaminophen 1gm, oral, every 6-8 hours, not to exceed 4gm daily (Review liver function prior to administration)  Ketorolac 30mg Inj, once daily in AM, starting POD1 (15mg >65years of age and/or renal impairment)  Pregabalin (Lyrica.) 50mg, oral every 8 hours (hold for	<b>Standing:</b> Acetaminophen 1gm, oral, every 6-8 hours, not to exceed 4gm total, (Total of 7-10 days)  Meloxicam 15mg, oral, once daily  Aspirin 81mg, oral, twice daily  <b>Breakthrough:</b> Tramadol 50mg oral, every 4-6 hours, PRN (36 tablets to be dispensed)  Oxycodone 5 mg,

					<p>If not tolerating oral, Fentanyl 50mcg, IV, every 10 min for max of 3 doses, PRN</p>	<p>sedation)</p> <p><b>Mild (1-3):</b> Ice therapy PRN (alternating 15 min on/off for skin evaluation)</p> <p><b>Moderate (4-6):</b> Tramadol 50mg oral, every 8 hours, PRN</p> <p><b>Severe (7-10):</b> Tramadol 100mg, oral, every 8 hours, PRN</p> <p><b>Breakthrough:</b> Oxycodone 5mg, oral, every 6 hours, PRN</p>	<p>oral every 6-8 hours PRN (14 tablets to be dispensed)</p>
--	--	--	--	--	---	---	--

## NYU ORTHOPEDICS DIVISION OF FOOT & ANKLE SURGERY PAIN MANAGEMENT PROTOCOL

Procedure	Pre-op	Day Before Surgery	Immediate Pre-op	Intra-op	PACU	Post-op	Discharge
<b>Bony Procedures</b>	<p>Continue NSAIDs</p> <p>Narcotics → Initiate Narcotic taper</p>	<p>Pre-op NSAIDs permitted Initiate Hydration Protocol</p> <p>Acetaminophen 1gm, oral, every 6-8 hours (not to exceed 4gm daily)</p> <p>Meloxicam 15mg. oral, daily</p>	None	<p>Regional + sedation</p> <p>Acetaminophen 1gm</p> <p>IV Ketorolac 30mg (15mg if &gt;65years of age and/or renal impairment)</p>	<p><b>Mild (1-3):</b> Ice therapy PRN (alternating 15 min on/off for skin evaluation)</p> <p><b>Moderate (4-6):</b> If tolerating oral, Tramadol 50mg oral, every 8 hours, PRN If not tolerating oral, Fentanyl 25mcg, IV, every 10 min for max of 3 doses, PRN (Administer only if resp rate &gt; 10)</p> <p><b>Severe (7-10):</b> If tolerating oral, Tramadol 100mg, oral, every 8 hours, PRN. If not tolerating oral, Fentanyl 50mcg, IV, every 10 min for max of 3 doses, PRN</p>	<p><b>Mild (1-3):</b> Ice therapy PRN (alternating 15 min on/off for skin evaluation)</p> <p><b>Moderate (4-6):</b> Tramadol 50mg oral, every 8 hours, PRN</p> <p><b>Severe (7-10):</b> Tramadol 100mg, oral, every 8 hours, PRN</p> <p><b>Breakthrough:</b> Oxycodone 5mg, oral, every 6 hours, PRN</p> <p><b>Standing:</b> Acetaminophen 1gm, oral, every 6-8 hours, not to exceed 4gm daily (Review liver function prior to administration)</p> <p>Ketorolac 30mg</p>	<p><b>Standing:</b> Acetaminophen 1gm, oral, every 6-8 hours, not to exceed 4gm total, (Total of 7-10 days)</p> <p>Meloxicam 15mg, oral, once daily (Aspirin 81mg, oral, once daily)</p> <p>Ice therapy PRN (alternating 20 min on/off)</p> <p>AVOID OXYCODONE RX IF POSSIBLE</p> <p><b>Breakthrough:</b> Tramadol 50mg oral, every 4-6 hours, PRN (24 tablets to be dispensed)</p>

						<p>Inj, once daily in AM, starting POD1 (15mg &gt;65years of age and/or renal impairment)</p> <p>Pregabalin (Lyrica.) 50mg, oral every 8 hours (hold for sedation)</p>	
<p><b>Soft Tissue Procedures</b></p>	<p>Continue NSAIDs</p> <p>Narcotics → Initiate Narcotic taper</p>	<p>Pre-op NSAIDs Permitted</p> <p>Initiate Hydration Protocol</p> <p>Acetaminophen 1gm, oral, every 6-8 hours (not to exceed 4gm daily)</p> <p>Meloxicam 15mg. oral, daily</p>	<p>None</p>	<p>Regional + sedation</p> <p>Acetaminophen 1gm, IV</p> <p>Ketorolac 30mg IV, (15mg &gt;65years of age and/or renal impairment)</p>	<p><b>Mild (1-3):</b> Ice therapy PRN (alternating 15 min on/off for skin evaluation)</p> <p><b>Moderate (4-6):</b> If tolerating oral, Tramadol 50mg oral, every 8 hours, PRN If not tolerating oral, Fentanyl 25mcg, IV, every 10 min for max of 3 doses, PRN (Administer only if resp rate &gt; 10)</p> <p><b>Severe (7-10):</b> If tolerating oral, Tramadol 100mg, oral, every 8 hours, PRN If not tolerating oral, Fentanyl 50mcg, IV, every 10 min for</p>	<p>N/A</p>	<p><b>Standing:</b> Acetaminophen 1gm, oral, every 6-8 hours, not to exceed 4gm total, (Total of 7-10 days)</p> <p>Meloxicam 15mg, oral, once Daily</p> <p>(Aspirin 81mg, oral, once daily)</p> <p>Ice therapy PRN (alternating 20 min on/off)</p> <p><b>Breakthrough:</b> Oxycodone 5-10mg, oral, every 6 hours, PRN</p>

					max of 3 doses, PRN		
--	--	--	--	--	------------------------	--	--

### NYU ORTHOPEDICS DIVISION OF SPORTS MEDICINE PAIN MANAGEMENT PROTOCOL

Procedure	Pre-op	Day Before Surgery	Immediate Pre-op	Intra-op	PACU	Discharge
<b>Meniscectomy</b>	<p>Stop narcotics, initiate narcotic taper if applicable</p> <p>Patient education and expectation setting re: post-op pain</p> <p>*Pain Management consultation as needed</p>	<p>Pre-op NSAIDs permitted</p> <p>Initiate Hydration Protocol</p>	<p>Meloxicam 15 mg</p> <p>Tylenol 1000mg</p>	<p>20 cc 0.5% Marcaine @ portal site (and intraarticular based on surgeon preference)</p> <p>NO TOURNIQUET FOR KNEE SCOPE IF POSSIBLE</p>	<p><b>Mild (1-3):</b> Ice pack</p> <p><b>Moderate (4-6):</b> Fentanyl 25mg IV or tramadol 50mg 1 tab PO</p> <p><b>Severe (7-10):</b> Fentanyl 50mg IV or Tramadol 50mg 2 tabs PO</p> <p>No Toradol in the PACU</p>	<p><b>Standing:</b> Acetaminophen 1gm, oral, every 6-8 hours, not to exceed 4gm total, (Total of 7-10 days)</p> <p>Meloxicam 15mg, oral, once daily or 600 mg Motrin q6-8h for 7 days then PRN (60 tabs)</p> <p>Ice therapy PRN (alternating 20 min on/off)</p> <p>AVOID OXYCODONE RX IF POSSIBLE</p> <p><b>Breakthrough:</b> Tramadol 50mg oral, every 4-6 hours, PRN (10 tablets to be dispensed)</p>

<p><b>ACL Reconstruction</b></p> <p><b>Multi-ligamentous Knee Reconstruction</b></p> <p><b>MPFL Reconstruction, AMZ</b></p> <p><b>Knee Osteotomy Open Osteochondral Graft Implant</b></p>	<p>Stop narcotics, initiate narcotic taper if applicable</p> <p>Patient education and expectation setting re: post-op pain</p> <p>*Pain Management consultation as needed</p>	<p>Pre-op NSAIDs permitted</p> <p>Initiate Hydration Protocol</p>	<p>Meloxicam 15 mg</p> <p>Tylenol 1000mg</p>	<p>Appropriate blocks and anesthetic</p> <p>Ketamine adjuvant 0.5mg/kg up to 50mg (anesthesiologist discretion)</p> <p>Zofran and Decadron</p> <p>20 cc 0.5%</p> <p>Marcaine @ portal site (and intraarticular based on surgeon preference)</p> <p>MINIMIZE TOURNIQUET USE IF POSSIBLE</p>	<p><b>Mild (1-3):</b> Ice pack</p> <p><b>Moderate (4-6):</b> Fentanyl 25mg IV or tramadol 50mg 1 tab PO</p> <p><b>Severe (7-10):</b> Fentanyl 50mg IV or Tramadol 50mg 2 tabs PO</p> <p>No Toradol in the PACU</p>	<p><b>Standing:</b> Acetaminophen 1gm, oral, every 6-8 hours, not to exceed 4gm total, (Total of 7-10 days)</p> <p>Meloxicam 15mg, oral, once daily or 600 mg Motrin q6-8h for 7 days then PRN (60 tabs)</p> <p>Ice therapy PRN (alternating 20 min on/off)</p> <p>AVOID OXYCODONE RX IF POSSIBLE</p> <p><b>Breakthrough:</b> Tramadol 50mg oral, every 4-6 hours, PRN (24 tablets to be dispensed)</p> <p>If necessary, oxycodone 5 mg every 6 hours as needed (20 tabs)</p>
---	---	---	--	--	--	---

Contraindications for medications

**A. Tylenol 1000 mg**

**Absolute Contraindications –**

- Hypersensitivity
- Severe hepatic impairment
- Active liver disease

**B. Meloxicam /Celebrex /Ibuprofen/Toradol**

**Absolute Contraindications**

- Hypersensitivity to aspirin, other NSAIDs, or any component of the formulation
- Patients who have experienced asthma, urticaria, or allergic-type reactions after taking aspirin or other NSAIDs;
- History of active GI bleed, GI ulceration, IBD, CDs
- Setting of CABG surgery, recent MI, stroke and ischemic heart disease
- Pregnancy

**Lyrica (50 mg)**

**Absolute Contraindications**

- Hypersensitivity
- Pregnancy

Considerations: use with caution in patients with

- Severe CV disease including heart failure
- Renal failure