**Alternatives To Opiates (ALTO\textsuperscript{SM}) Program**

Alexis LaPietra, DO  
Medical Director of Emergency Medicine Pain Management  
St. Joseph’s Regional Medical Center  
Paterson, NJ

**ALTO\textsuperscript{SM} CLINICAL APPLICATIONS**

**Renal Colic**

1. Toradol 30 mg IV  
2. Cardiac Lidocaine 1.5 mg/kg IV in 100 mL NS over 10 minutes (MAX 200 mg)  
3. Acetaminophen 1000 mg PO  
4. 1 L 0.9% NS bolus

**Musculoskeletal Pain (sprains, strains, or opiate naïve lower back pain)**

1. Acetaminophen 1000 gm PO  
2. Motrin 600 mg PO OR Toradol 30 mg IV/IM  
3. Muscle Relaxant (choose one of the following)  
   a. Flexeril 5 mg PO (patients >65 years old OR <70 kg OR concerns for somnolence)  
   b. Flexeril 10 mg PO (patients >70 kg)  
   c. Valium 5 mg PO  
4. Lidoderm patch to most painful area, MAX 3 patches instruct patient to remove after 12 hours  
5. Gabapentin (neuropathic component of pain)  
   a. 300 mg PO  
6. Trigger Point Injection with 1-2 mL of Marcaine 0.5% or Lidocaine 1%

**Acute on Chronic Radicular LBP (opiate tolerant)**

1. Acetaminophen 1000 mg PO  
2. Motrin 600 mg PO OR Toradol 30 mg IV/IM  
3. Muscle Relaxant (choose one of the following)  
   a. Flexeril 5 mg PO (patients >65 years old OR <70 kg OR concerns for somnolence)  
   b. Flexeril 10 mg PO (patients >70 kg)  
   c. Valium 5 mg PO
4. Gabapentin (neuropathic component of pain)  
   a. 300 mg PO
5. Dexamethasone 8 mg IV
6. Lidoderm patch to most painful area, MAX 3 patches instruct patient to remove after 12 hours
7. Trigger Point Injection with Marcaine 0.5% or Lidocaine 1% 1-2 mL
8. Ketamine 0.1-0.3 mg/kg in 50 cc NS over 10 minutes  
   a. Ketamine 0.1 mg/kg/hour until pain is tolerable

**Headache**

1. Reglan 10 mg PO/IV
2. 1 L 0.9% NS bolus
3. Motrin 600 mg PO Or Toradol 30 mg IM/IV
4. Tylenol 1000 mg PO
5. Cervical or Trapezius Trigger Point Injection with Marcaine 0.5% or Lidocaine 1%
   If <50% pain relief then
6. Magnesium 1 gm IV over 60 minutes
7. Valproic Acid 500 mg/50 cc NS over 20 mins
8. Dexamethasone 4-8 mg IV
   If <50% pain relief then
9. Haldol 5 mg IV
   If <50% pain relief then place in OBS unit with Neuro consult

**Extremity Fracture or Joint Dislocation**

(Steps 1-3 done while setting up for block)

1. Ketamine Intranasal 0.5 mg/kg (concentration 50 mg/mL)  
   a. MAX dose 50 mg; MAX volume per nare 1 mL
2. Nitrous Oxide titrate up to 70%
3. Tylenol 1000 mg PO
4. Ultrasound Guided Regional Anesthesia  
   a. Joint Dislocation  
      i. Lidocaine 0.5 % peri-neural infiltration (MAX 5 mg/kg)
   b. Extremity Fracture  
      i. Ropivacaine 0.5% peri-neural infiltration (MAX 3 mg/kg)
References


4. Cleveland Clinic Algorithm (ctrl and click)


7. Ferrini R, Paice JA. How to initiate and monitor infusional lidocaine for severe and/or neuropathic pain. *J Support Oncol._2004 Jan-Feb;2(1):90-4


12. Linde M, Mulleners WM, Chronicle EP, McCrory DC. Valproate (valproic acid or sodium valproate or a combination of the two) for the prophylaxis of episodic migraine in adults. *Cochrane Database Syst Rev.* 2013 Jun 24;6


