I Want A New Drug: ALTO & the Henry Ford Experience

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MCEP Past President

• No Disclosures
Objectives

I. History of ALTO
II. Practical Application of ALTO
III. HFHS ALTO Experience

ALTO History

• ALTO: Alternatives to Opioids
• Dr. Mark Rosenberg, DO, MBA, FACEP (ACEP President-Elect)
• Alexis LaPietra, DO
• St. Joseph’s in Patterson, New Jersey
• January 2016
<table>
<thead>
<tr>
<th>Condition</th>
<th>Analgesia</th>
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</thead>
<tbody>
<tr>
<td>Acute Headache</td>
<td>Ibuprofen/Ketorolac, Acetaminophen, Region, Trigger point injection, Magnesium, Valproic Acid, Dexamethasone, Haldol</td>
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<tr>
<td>Renal Colic</td>
<td>Ketorolac, Acetaminophen, Cardiac lidocaine</td>
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<tr>
<td>Musculoskeletal Pain (sprains, strains or opiate naive low back pain)</td>
<td>Ibuprofen/Ketorolac, Acetaminophen, Cyclobenzaprine, Lidocaine patch, Gabapentin, Trigger point injection</td>
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<tr>
<td>Acute on Chronic Radicular Low Back Pain (opiate tolerant)</td>
<td>Ibuprofen/Ketorolac, Acetaminophen, Cyclobenzaprine, Lidocaine patch, Gabapentin, Trigger point injection, Dexamethasone, Ketamine</td>
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<tr>
<td>Extremity Fracture or Joint Dislocation</td>
<td>Acetaminophen, Ketamine Intrasenal, Nitrous Oxide, Ultrasound guided regional anesthesia</td>
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**Colorado ALTO Intervention**

**Figure 1: Cohort Opioid Usage Baseline (2016) vs. Intervention (2017)**

<table>
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<tr>
<th>Average Morphine Equivalent Units per ED Visit</th>
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<tbody>
<tr>
<td>Year</td>
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<tr>
<td></td>
</tr>
<tr>
<td>June</td>
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<tr>
<td>July</td>
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<td>August</td>
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<td>September</td>
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<td>October</td>
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<td>November</td>
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</table>
National Opioid Epidemic

Opioid Overdose Deaths
Michigan, 2017
Objectives

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Case #1

• 54 y.o. female
  • Diffuse abdominal pain and nausea x 1.5 days
  • + vomiting, clear/stomach contents
  • Diffusely tender on exam, no rebound tenderness
  • PMH: HTN
  • Social Hx: -ETOH, + MJ, - tobacco
  • Chart Review: 10 similar presentations in the last 2 years and 7 negative CT abd at your ED and other institutions combined
Case #2

- 42 y.o. female PMH DM, Lupus and Fibromyalgia
  - Body Pain all over X 1 day, described as lupus flare
  - Can’t remember when last seen a rheumatologist
  - Meds that work: IV Dilaudid
  - Allergies: Toradol

Case #3

- 53 y.o. male hx of HTN
  - 2 days L side flank pain radiating to L groin
    - Acutely worse in last 3 hours
    - Nausea and vomiting
  - L CVA tenderness
  - Appears in moderate distress
Objectives

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HFHS ALTO Experience

• Assemble the team
  • ED leadership from all departments
  • Pharmacy
  • IT
Building ALTO Guidelines

- New Jersey (St. Joseph’s), Colorado, Wisconsin
- Review the literature
- Remove what is impractical
- Gain approval: Pain, Nursing, MMC (P+T)
- Education (Nursing, Residents, PAs, Staff)
- Implementation (including IT)

ALTERNATIVES TO OPIOIDS—RENAL COLIC

Patient presents with signs and symptoms consistent with renal colic or confirmed renal colic

ACETAMINOPHEN 975 MG AND
KETOROLAC 15-30 mg IM or IV

CONSIDER:
1. LITER 0.9% Normal Saline Bolus

IF TREATMENT FAILURE AT 60 MINUTES CONSIDER
DESMOPRESSIN 40 MC G INTRanasal

ALTO:
MSK OR ACUTE ON CHRONIC BACK RADIATIC LOW BACK PAIN

IBUPROFEN 600 MG PO OR KETOROLAC 15-30 MG IM OR IV

ACETAMINOPHEN 975 MG PO

(ADD ANY ADDITIONAL THERAPIES AS NEEDED/INDICATED)

LIDOCAINE 5% PATCH TO MOST PAINFUL AREA
(MAX 3 PATCHES, REMOVE AFTER 12 HOURS)

KETAMINE 0.1-3.3 mg/kg in
50 mL of NS over 10 minutes
(max dose 30 mg)

MUSCLE RELAXANT (CHOOSE ONE)
- METHOCARBAZINE 1500 MG PO
- CYCLOPENTAZINE 5 MG-10 MG (LOWER DOSE IN AGE >65, WEIGHT <70KG)
- TIZANIDINE 2MG PO

DEXAMETHASONE 8MG IV
(IF OPHTHALMOLGY/RADICULAR)


ALTO—HEADACHE

Patient presents with symptoms consistent with benign intractable headache/migraine headache

ADMINISTER
ACETAMINOPHEN 975 mg PO AND IBUPROFEN 600 mg PO OR KETOROLAC 15-30 mg IM OR IV

CONSIDER
METOCLOPRAMIDE 10 mg PO IV OR PROCHLORPERAZINE 5 mg PO IV AND 0.9% NS bolus (if not hydrated or vomiting)

If <50% pain in 60 minutes CHOOSE ONE OR MORE
MAGNESIUM 2 gm IV over 60 minutes
VALPROIC ACID 500 mg/60 mL NS over 20 mins
DEXAMETHASONE 4-8 mg IV
SUMATRIPTAN 8mg SC

If <50% pain relief in another 60 minutes, consider:
Haldol 2.5-5 mg IV

ALTO—EXTREMIT Y FRACTURE/DISLOCATION

PATIENT PRESENTS WITH CLINICALLY APPARENT FRACTURE OR DISLOCATION
(ALTO THERAPIES IDEALLY PERFORMED WITHOUT WAITING FOR IV ACCESS)

1. ACTEMINOPHEN 975 MG PO
2. KETAMINE 0.5-1 mg/kg intranasal

ULTRASOUND GUIDED REGIONAL ANESTHESIA

JOINT DISLOCATION—LIDOCAINE 0.5% PERINEURAL INFILTRATION (MAX DOSE 5 mg/kg)
EXTRIMITY FRACTURE—ROPIVACAINE 0.5% PERINEURAL INFILTRATION MAX 5 mg/kg


ALTO—CHRONIC ABDOMINAL PAIN/ GASTROPARESIS

Patient presents with symptoms consistent with chronic recurrent abdominal pain or gastroparesis

ADMINISTER

1. Metoclopramide 10mg IV or Prochlorperazine 10 mg IV AND DIPhenHYDramINE 25 mg IV AND KETOROLAC 15 mg IV

CONSIDER (non-IV option) Dicyclomine 20 mg PO/H

If <50% pain relief in 60 minutes CHOOSE ONE OF THE FOLLOWING

HALOPERIDOL 2.5-5 mg IV OR KETAMINE 0.1-0.3 mg/kg in 50 mL NS over 10 minutes


10/8/2020
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Thank You!

• Questions?