Meeting the Challenges of Opioids and PAIN

Overview of Alternative Pain Treatment

Monday, January 14, 2019
A Provider Toolkit

Meeting the Challenges of Opioids and PAIN:

PATIENT EDUCATION ON PAIN AND OPIOID PRESCRIPTIONS
ADDRESSING OPIOID PRESCRIPTION PRACTICES
IDENTIFYING SAFE AND EFFECTIVE PAIN MANAGEMENT PROTOCOLS
NONPHARMACOLOGIC AND NON-OPIOID PHARMACOTHERAPY ALTERNATIVES

http://www.stratishealth.org/pip/opioids.html

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Meeting the Challenges of Opioids and Pain: An Overview of Alternative Pain Treatment Options

Isaac Marsolek MD
HealthPartners Pain Management

About Me

• University of Minnesota Medical School
• Residency in Physical Medicine and Rehabilitation
About Me

- Fellowship in Pain Management Fairview Health Services
- Started at Health Partners 10/2013

Financial Disclosure

- Nothing to Disclose
• Brief Refresher on the opioid epidemic
• Understanding and classifying pain to better match treatments
• High level overview of various treatment options

What is an opioid?

<table>
<thead>
<tr>
<th>Medication Generic Name</th>
<th>Brand Names</th>
<th>Street/Slang Names</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oxycodone</td>
<td>OxyContin®, Percocet®, Percocet®, and others</td>
<td>O.C., Oxyvet, Oxycontin, Oxy, Hillbilly Heroin, Pervs</td>
</tr>
<tr>
<td>Hydrocodone or hydrocodone</td>
<td>Vicodin®, Lortab®, Lorcet®, and others</td>
<td>Vike, Watson-387</td>
</tr>
<tr>
<td>Morphine</td>
<td>Kadian®, Aviron®, MS Contin®, Duramorph®, Roxanol®</td>
<td>M, Miss Emma, Monkey, White Stuff</td>
</tr>
<tr>
<td>Codeine</td>
<td>Various brand names; often combined with acetaminophen and aspirin</td>
<td>Captain Cody, Cody, Lean, Schoolboy, Sizzurp, Purple Drank, With glutethimide: Doors &amp; Fours, Loads, Pancakes and Syrup</td>
</tr>
<tr>
<td>Fentanyl</td>
<td>Duragesic®, Actiq®, Sublimaze®</td>
<td>Apache, China Girl, China White, Dance Fever, Friend, Goodfella, Jackpot, Murder &amp; Tango and Cash, TNT</td>
</tr>
<tr>
<td>Hydromorphone</td>
<td>Dilaudid®</td>
<td>D, Dillies, Footballs, Juice, Smack</td>
</tr>
<tr>
<td>Meperidine</td>
<td>Demerol®</td>
<td>Demmies</td>
</tr>
<tr>
<td>Oxymorphone</td>
<td>Opana®</td>
<td>Biscuits, Blue Heaven, Blues, Mrs. O, O Bomb, Octagons, Stop Signs</td>
</tr>
</tbody>
</table>
**THE OPIOID EPIDEMIC BY THE NUMBERS**

**IN 2016...**

- **116** People died every day from opioid-related drug overdoses
- **11.5 m** People misused prescription opioids
- **42,249** People died from overdosing on opioids
- **170,000** People died from the first time
- **2.1 million** People died from prescription opioids for the first time
- **19,413** Deaths attributed to overdosing on synthetics other than methadone
- **15,469** Deaths attributed to overdosing on heroin
- **504 billion** in economic cost


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**Minnesota opioid overdose death rates, 2000-07**

Includes people of all races.

Source: U.S. Centers for Disease Control and Prevention Wonder database
Diseases of Despair

Drug, alcohol and suicide mortality in Minnesota, 1999-2015

Rates are age-adjusted, which means they account for differences in the age of the population over time.

Source: Centers for Disease Control (drug and alcohol mortality rates) Minnesota Department of Health (suicide mortality rate)
Chronic Pain Management
Pain Sensitivity

• ~50% Genetic ~50% Experience

Normal Pain Feedback Loop
Central Sensitization

Chronic Pain with Central Sensitization
Sensory input can be turned up or down. In Central Sensitization it is turned way up. Loss of descending inhibitory control. This is not a psychological illness.

Marsolek, Isaac T, 10/30/2017
Opioid-induced Hyperalgesia

Opioid-induced Hyperalgesia and Central Sensitization

Journal of Pharmacology and Experimental Therapeutics
October 2016, 359 (1) 82-89
Well-Managed Chronic Pain

Central Sensitization in action

Fig. 2. Pain maps after intramuscular injection of hypertonic (6%) saline 0.5 mL into the tibial anterior muscles of individual subjects. Notice the wider areas of referred pain in patients compared with the healthy subject, strongly indicating central hyperexcitability. (Courtesy of Lars Arendt-Nielsen, Aalborg, Denmark.)
Central Sensitization

- Posttraumatic Stress Disorder
- Fibromyalgia
- Chronic fatigue Syndrome
- Functional Gastrointestinal Disorders
- Tension Type Headaches
- Migraines
- Temporomandibular Disorders
- Restless Legs Syndrome
- Myofascial Pain Syndromes
- Female Urethral Syndrome/Interstitial Cystitis
- Primary Dysmenorrhea
- Multiple Chemical Sensitivities

Central Sensitization (CSS)
Pain Types by Physiology

- Nociceptive
  - Inflammatory
  - Mechanical
- Psychogenic
- Neuropathic
- Muscular
- Bone

- Pain Assessment
- Physiologic Types
- Treatment Strategies
Pain Treatments need to match the Patient’s Pain!
Diagnosis

- Clinical setting
  - Postoperative
  - Trauma
  - Infection
  - Arthritis
- Distribution
  - Joints
  - Area of infection or trauma
  - Surgical incision
- Quality
  - Aching
  - Throbbing
  - Worse with movement
- Physical findings
  - Warm
  - Red
  - Swollen

Drug Management

- NSAID
  - Ibuprofen (Motrin)
  - Naproxen (Aleve)
  - Celecoxib (Celebrex)
- Corticosteroids (if not contraindicated by infection)
- Acetaminophen (Tylenol)
Neuropathic Pain

**Diagnosis**
- Clinical setting
  - Diabetes
  - MS
  - HIV
  - Spine surgery
- Distribution
  - Stocking/glove
  - Peripheral nerve
  - Nerve root/dermatome
- Quality & timing
  - Burning or shooting
  - Worse at night
- Physical findings
  - Allodynia
  - Cooler temps
  - Neurological deficit

**Drug Management**
- Anticonvulsants
  - Gabapentin (Neurontin)
  - Pregabalin (Lyrica)
  - Topiramiate (Topamax)
- Antidepressants
  - TCAs: Amitriptyline (Elavil)
  - SNRIs: Duloxetine (Cymbalta)
- Local anesthetics
- Capsaicin

Bone Pain

**Diagnosis**
- Clinical setting
  - Cancer
  - Compression fracture
  - Sickle cell
  - Osteoporosis
  - Other trauma/fracture
- Distribution
  - Limb
  - Spine
  - Rib
  - Hip
- Quality & timing
  - Incident pain
- Physical findings
  - Tenderness

**Drug Management**
- NSAIDs
- Corticosteroids
- Bisphosphonates
- Salmon Calcitonin
**Muscular Pain**

**Diagnosis**
- Clinical setting
  - Muscular injury
- Distribution
  - Muscle group
- Quality & timing
  - Aggravated by certain movement or position
  - Better at rest
  - Pulling, ripping, aching, spasm, cramping
- Physical findings
  - Limited ROM
  - Trigger points
  - Muscle tightness
  - Taut bands or knots

**Drug Management**
- Cyclobenzaprine (Flexeril)
- Orphenadrine (Norflex)
- Methocarbamol (Robaxin)
- Tizanidine (Zanaflex)

**Psychogenic Pain**

**Diagnosis**
- Clinical setting
  - High stress
  - Anxiety
  - Depression
- Distribution
  - Widespread
  - Non-anatomical
- Quality & timing
  - Extreme and dramatic descriptors
- Physical findings
  - Anxious
  - Histrionic
  - Normal physical exam

**Drug Management**
- Antidepressants
  - SSRI
  - SNRI
  - Bupropion (Wellbutrin)
  - Mirtazepine (Remeron)
- Anxiolytics
  - Benzodiazepine
  - Buspirone (BuSpar)
  - SSRI
- Atypical antipsychotics
  - Quietapine (Seroquel)
  - Respiradone (Zyprexa)
Rehabilitation Therapies

• Physical Therapy
• Occupational Therapy
• Speech Therapy

Rehabilitation Therapies: Treatments

• Exercise/Conditioning/Stretching
• E-Stim
• TENS
• Ultrasound treatments
• Dry Needling
• Taping
• Pool therapy
Interventional Treatments

- Joint injections
- Epidural Injections
- Radiofrequency Ablation
- Neuromodulation

Psychological Support

- Biofeedback
- Relaxation Training
- Cognitive Behavioral Therapy (CBT)
- Dialectic Behavioral Therapy (DBT)
- Hypnosis
- Trauma based therapies
- Emotionally focused therapies

- Between 60-70% of patients that present to chronic pain clinics have untreated or under treated depression, anxiety, or bipolar disorder.
Complementary and Alternative Treatments

- Acupuncture
- Chiropractic care
- Yoga
- Nutrition
- Tai Chi
- Massage Therapy

Summary

- Pain is a complex and multifactorial.
- Our experiences can significantly change our biology and perception of pain for better or worse.
- There are numerous treatment options that are not opioids
- Treatments need to match the Patient’s complexity
Questions

• Isaac.T.Marsolek@HealthPartners.com