Adjunct Approaches to Chronic Pain Management for Individuals with SUD

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Objectives

At the end of this session, grantees will be able to:

1. Prescribers increase knowledge on evidence-based adjunct approaches to treating or managing chronic pain and actionable tools, trainings, and other resources available to prescribers through PCSS-O
   2. Prescribers understand the potential for misuse, abuse and diversion of prescribed opioid medications.
   3. Prescribers will understand the risk factors in the assessment of patients initiating opioid pain medications.
   4. Prescribers understand the how to and the importance of monitoring patients on opioid medications.
   5. Prescribes will be better prepared to intervene when problem use is identified and have tools to help the patient.
Vicious Cycle of Uncontrolled Pain

- Pain
- Avoidance Behaviors
- Decreased Mobility
- Social Limitations
- Diminished Self-Efficacy
- Altered Functional Status
Grams of Selected Drugs Distributed per 100,000: DEA ARCOS 1997–2013

Hydrocodone, Oxycodone, Methadone

Hydrocodone
Methadone
Oxycodone
Case Presentation - PL

- 57 M,C,♂
- Alcohol related injury at 25 resulting in a hip replacement.
- Injury to his back at 32 resulting in disability. Onset of prescribed opiates
- Remained on disability
- Hospitalized 11-08 d/t to clonazepam od
- Acetaminophen 500mg, hydrocodone 5mg #7 / 6 times a day.
- Suggested on consult patient be placed on a long acting opioid opioid
Case Presentation - PL

- Came for consultation 3/09 Oxycodone XL 60mg #5, 4 time a day
Back Pain

• There has been 423% increase in the expenditure for spine-related narcotic analgesics from 1997 to 2004*

• Yet in assessment of health status there has been no significant improvement.

Martin BI, et.al., JAMA February 13, 2008 Vol. 299, No. 6
Abuse Deterrent/Resistant Formulations

Currently there are NO PROVEN abuse deterrent/resistant opioids or formulations

Changes in Use Secondary to Supple and Demand

• Trends in demand, supply, and unintended consequences are declining (impact of actions by FDA and manufacturers, education and training for prescribing physicians, and overdose campaigns), but IDU risks are on the rise.
• More users are shifting from other opiates to heroin.
• Changes in user characteristics (young suburban heroin users and aging adults dependent on pain pills and benzodiazepines)—Treatment need versus capacity
• Unresolved problems in increasing accessibility to treatment
Number of U.S. Drug Poisoning Deaths
CDC 1999–2013

- Other Opiates
- Methadone
- Other Synthetics
- Benzodiazepines
- Heroin

![Graph showing the number of U.S. drug poisoning deaths from 1999 to 2013, categorized by drug type.](image)
Age-Adjusted Death Rates for Three Selected Causes Of Injury, United States, 1979–2013

- Motor Vehicle Traffic
- Firearms
- Drug Poisoning

Deaths per 100,000 Population

- 1979
- 1983
- 1988
- 1993
- 1998
- 2003
- 2008
- 2013

1979
1983
1988
1993
1998
2003
2008
2013
Determining When to Initiate or Continue Opioids for Chronic Pain

1. **Nonpharmacologic therapy and nonopioid pharmacologic therapy are preferred** for chronic pain. Clinicians should consider opioid therapy only if expected benefits for both pain and function are anticipated to outweigh risks to the patient. If opioids are used, they should be combined with nonpharmacologic therapy and nonopioid pharmacologic therapy, as appropriate.

2. Before starting opioid therapy for chronic pain, clinicians should **establish treatment goals** with all patients. Clinicians should continue opioid therapy only if there is clinically meaningful improvement.

3. Before starting and periodically during opioid therapy, clinicians should **discuss with patients known risks and realistic benefits** of opioid therapy.
Opioid Selection, Dosage, Duration, Follow-Up, and Discontinuation

4. When *starting* opioid therapy for chronic pain, clinicians should *prescribe immediate-release opioids*.

5. On starting opioids clinicians should *prescribe the lowest effective dosage*. ...reassess evidence of individual benefits and risks when increasing dosage to ≥50 morphine milligram equivalents (MME)/day, and avoid increasing to ≥90 MME/day ... justify a dosage to ≥90 MME/day.

6. Long-term opioid use often begins with treatment of acute pain. When opioids are used for acute pain, ... prescribe the lowest effective dose of immediate-release opioids and *no greater quantity than needed* for the expected duration of pain severe enough to require opioids. Three days or less will often be sufficient; more than seven days will rarely be needed.

7. Clinicians should *evaluate benefits and harms with patients within 1 to 4 weeks* of starting opioid therapy for chronic pain or of dose escalation and every 3 months or less.
Assessing Risk and Addressing Harms of Opioid Use

1. **Periodically clinicians should evaluate risk factors** for opioid-related harms. *Establish a management plan strategies to mitigate risk, including considering offering naloxone when there are factors that increase the chance for overdose:*

   1. - history of overdose,
   2. - history of substance use disorder,
   3. - higher opioid dosages (≥50 MME/day),
   4. - concurrent benzodiazepine use, are present.

2. Review the patient’s history of controlled substance prescriptions using **state prescription drug monitoring program (PDMP) data**. Clinicians should review PDMP data when starting opioid therapy for chronic pain and periodically during opioid therapy for chronic pain, ranging from every prescription to every 3 months.
CDC Guidelines

• Assessing Risk and Addressing Harms of Opioid Use

10. When prescribing opioids for chronic pain, clinicians should use urine drug testing before starting opioid therapy and consider urine drug testing at least annually to assess for prescribed medications as well as other controlled prescription drugs and illicit drugs.

11. Clinicians should avoid prescribing opioid pain medication and benzodiazepines concurrently whenever possible.

12. Clinicians should offer or arrange evidence-based treatment (usually medication-assisted treatment with buprenorphine or methadone in combination with behavioral therapies) for patients with opioid use disorder.
Pain and Suffering

Chronic Pain

Does Not Necessarily Equal

Suffering

Ed Salsizt
The Value of Pain

Pain is our body’s system alerting us to a problem.

- Put your hand on a hot plate and you move it away quickly!
- Hurt your ankle and you limp attempting to reduce the pain and allow the injury to heal.

Without pain, we could sustain more injury.
Adaptation to pain

• Once the pain feedback system identifies the problem is no longer indicating a worsening problem the pain feedback mechanism modulates the response, the pain is isolated, and suffering is reduced.

• This can also occur through perception of pain by cognition and conditioning.

• Medications can augment these adaptations or disrupt them.
Poor Evidence for High Dose Opioids

- Persistent pain, like all chronic illnesses, is managed optimally with a bio-psychosocial model and not with the opio-centric practice.

- Data from a large population-based study suggests:
  - chronic high-dose opioids may fare worse over time than those on lower doses or none
  - quality of life measures for patients using high-dose opioids were lower than on low dose
  - four times less likely to “recover” significantly during the five years of the study

ClinJPain, Vol26: No9, 2010
Conclusions as to opioid efficacy

• Opioids are an essential treatment for some patients with CNMP.
  • They are rarely sufficient
  • They almost never provide total lasting relief
  • They ultimately fail for many
  • They pose some hazards to patients and society

• It is not possible to accurately predict who will be helped – but those with contraindications are at high risk
Risk Assessment Tools (cont)

- Opioid Risk Tool (ORT)
  - Predict which patients might develop aberrant behavior when prescribed opioids for chronic pain
- Diagnosis, Intractability, Risk, Efficacy (DIRE)
  - Predict the analgesic efficacy of, and patient compliance to, long-term opioid treatment in the primary care setting
- Screener and Opioid Assessment for Patients with Pain-Revised (SOAPP-R)
  - Predict aberrant medication-related behaviors in patients with chronic pain considered for long-term opioid therapy

### D.I.R.E. Score: Patient Selection for Chronic Opioid Analgesia

For each factor, rate the patient's score from 1-3 based on the explanations in the right hand column.

<table>
<thead>
<tr>
<th>Score</th>
<th>Factor</th>
<th>Explanation</th>
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|       | **Diagnosis**| 1 = Benign chronic condition with minimal objective findings or no definite medical diagnosis. Examples: fibromyalgia, migraine headaches, non-specific back pain.  
2 = Slowly progressive condition concordant with moderate pain or fixed condition with moderate objective findings. Examples: failed back surgery syndrome, back pain with moderate degenerative changes, neuropathic pain.  
3 = Advanced condition concordant with severe pain with objective findings. Examples: severe ischemic vascular disease, advanced neuropathy, severe spinal stenosis. |
|       | **Intractability** | 1 = Few therapies have been tried and the patient takes a passive role in his/her pain management process.  
2 = Most customary treatments have been tried but the patient is not fully engaged in the pain management process, or barriers prevent (insurance, transportation, medical illness).  
3 = Patient fully engaged in a spectrum of appropriate treatments but with inadequate response. |
|       | **Risk**     | *(R= Total of P+C+R+S below)*                                                                                                                                                                                                     |
|       | Psychological: | 1 = Serious personality dysfunction or mental illness interfering with care. Example: personality disorder, severe affective disorder, significant personality issues.  
2 = Personality or mental health interferes moderately. Example: depression or anxiety disorder.  
3 = Good communication with clinic. No significant personality dysfunction or mental illness. |
|       | Chemical Health: | 1 = Active or very recent use of illicit drugs, excessive alcohol, or prescription drug abuse.  
2 = Chemical coper (uses medications to cope with stress) or history of CD in remission.  
3 = No CD history. Not drug-focused or chemically reliant. |
|       | Reliability:  | 1 = History of numerous problems: medication misuse, missed appointments, rarely follows through.  
2 = Occasional difficulties with compliance, but generally reliable.  
3 = Highly reliable patient with meds, appointments & treatment. |
|       | Social Support: | 1 = Life in chaos. Little family support and few close relationships. Loss of most normal life roles.  
2 = Reduction in some relationships and life roles.  
3 = Supportive family/close relationships. Involved in work or school and no social isolation. |
|       | Efficacy score | 1 = Poor function or minimal pain relief despite moderate to high doses.  
2 = Moderate benefit with function improved in a number of ways (or insufficient info- hasn’t tried opioid yet or very low doses or too short of a trial).  
3 = Good improvement in pain and function and quality of life with stable doses over time. |

**Total score = D + I + R + E**

9/16/09

Name:_________________ Date:___________

Please answer the questions below using the following scale:
0 = Never, 1 = Seldom, 2 = Sometimes, 3 = Often, 4 = Very Often

1. How often do you have mood swings?

2. How often do you smoke a cigarette within an hour after you wake up?

3. How often have you taken medication other than the way that it was prescribed?

4. How often have you used illegal drugs (for example, marijuana, cocaine, etc.) in the past five years?

5. How often in your lifetime have you had legal problems or been arrested?

Please include any additional information you wish about the above answers. Thank you
Multimodal Treatment

Pharmacotherapy
- Opioids, nonopioids, adjuvant analgesics

Interventional Approaches
- Injections, neurostimulation

Physical Medicine and Rehabilitation
- Assistive devices, electrotherapy

Psychological Support
- Psychotherapy, group support

Complementary and Alternative Medicine
- Massage, supplements

Lifestyle Change
- Exercise, weight loss

Strategies for Pain and Associated Disability

Multiple Types of Pain

A. Nociceptive

- Noxious Peripheral Stimuli
  - Peripheral Nerve Damage
  - No Known Tissue or Nerve Damage
  - Abnormal Central Processing

B. Inflammatory

- Inflammation
  - Multiple Mechanisms
  - Peripheral Nerve Damage

C. Neuropathic

- Multiple Mechanisms
  - Peripheral Nerve Damage

D. Noninflammatory/Nonneuropathic

- No Known Tissue or Nerve Damage

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**Examples**

- **A. Nociceptive**
  - Strains and sprains
  - Bone fractures
  - Postoperative

- **B. Inflammatory**
  - Osteoarthritis
  - Rheumatoid arthritis
  - Tendonitis

- **C. Neuropathic**
  - Diabetic peripheral neuropathy
  - Post-herpetic neuralgia
  - HIV-related polyneuropathy

- **D. Noninflammatory/Nonneuropathic**
  - Fibromyalgia
  - Irritable bowel syndrome

Patients may experience multiple pain states simultaneously.

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Pain

• Perception of pain as a 4-step model
  • **Transduction**: Acute stimulation in the form of noxious thermal, mechanical, or chemical stimuli is detected by nociceptive neurons.
  • **Transmission**: Nerve impulses transferred via axons of afferent neurons from the periphery to the spinal cord, to the medial and ventrobasal thalamus, to the cerebral cortex
  • **Perception**: Cortical and limbic structures in the brain are involved in the awareness and interpretation of pain.
  • **Modulation**: Pain can be inhibited or facilitated by mechanisms affecting ascending as well as descending pathways.
Perceived Pain - Suffering

• At risk patients
  • Past history of substance use disorder
  • Emotionally traumatized
  • Dysfunctional / alcoholic family
  • Lacks effective coping skills
  • Dependent traits
  • Stimulus augmenters-deficit in hedonic tone

Paul Farnum, MD   PHP, BC
OPTIONS: Intrinsic Treatments

- Noncontrolled drugs (such as NSAIDS)
- Exercise/physical therapy
- Coping strategies
- Manual medicine
- Referral to a pain specialist
Noncontrolled Drugs To Manage Chronic Pain

- NSAIDS
- Tricyclics
- Antidepressants/anxiolytics
- Anticonvulsants
- Muscle relaxants
- Topical preparations (e.g., anesthetics, aromatics)
- Others (tramadol)
Noncontrolled Drugs To Manage Chronic Pain

- NSAIDS: Inhibit prostaglandin synthesis
  - Work on Cyclo-Oxygenase (COX) COX-1 and COX-2
  - Decrease pain (minutes to hours)

- COX-1 agents
  - Aspirin, ibuprofen, naproxen, ketoprofen, indomethacin, diclofenac, piroxicam, sulindac
Noncontrolled Drugs To Manage Chronic Pain

- COX-2 inhibitors
  - Enzyme responsible for inflammation and pain
    - Normally not present but induced during inflammation
  - Decrease gastrointestinal effect
  - Celecoxib
Noncontrolled Drugs To Manage Chronic Pain

Antidepressants
- Decrease reuptake of serotonin and norepinephrine
- Increase sleep
- Enhance descending pain-modeling paths
- SSRIs: not as effective
- SNRI: venlafaxine (Effexor), duloxetine (Cymbalta) (FDA), desvenlafaxine (Prestiq), milnacipran (Savella) (FDA for fibromyalgia)
Noncontrolled Drugs To Manage Chronic Pain

Tricyclic Antidepressants
A variety of anticholinergic effects.

- most: Amitripityline, Doxipine, Imipramine, nortriptyline
- least: Desipramine
Noncontrolled Drugs To Manage Chronic Pain

- **Antiepileptic Drugs**
  - Decrease neuronal excitability
  - Exact mechanism is unclear
  - Not due to antiepileptic activity (e.g., phenobarbital is a poor analgesic)
  - Good for stabbing, shooting, episodic pain from peripheral nerves

  - Gabapentin (FDA)
  - Pregabalin (FDA)
  - Carbamazepine (FDA)
  - Topiramate
  - Oxcarbazepine
  - Zonisamide
  - Dilantin
Noncontrolled Drugs To Manage Chronic Pain

- **Other drugs**
  - **Tramadol**
    - Mixed mu opioid agonist and NE-serotonin reuptake inhibitor
  - **Corticosteroids**
    - Decrease inflammation, swelling
  - **Baclofen**
    - GABA receptor agonist
    - Used for spasticity
  - **Ketamine**
    - NMDA antagonist
    - Used in general anesthesia, neuropathic pain
    - Rarely used because of side effects
    - Topical
Nonpharmacologic Treatments for Chronic Pain

- Use a full spectrum of therapies.
  - Physical therapy—conditioning
  - Pain psychology—relaxation, counseling, expectations orientation
  - Massage therapy
  - Hypnotherapy
  - Spinal manipulation
  - Acupuncture
  - Transcutaneous Electrical Nerve Stimulation (TENS) units
  - Nerve blocks
  - Pain management group
OPTIONS: Adjunctive Therapies

- Reconditioning, physical therapy
- Physiological self-regulation
  - Yoga, biofeedback training, meditation
- TENS
- Adjunctive medications
- Injections/blocks
- Psychotherapy, nonchemical coping
Cognitive Behavioral Therapy for Pain

- Exercise – walking to increase engagement with valued activities
- Pacing – accomplish tasks in a thoughtful way
- Relaxation training – techniques to decrease stress
- Cognitive Restructuring – Identify unhelpful thoughts and increase balanced thinking
- Behavioral Activation – increase engagement in rewarding and meaningful activities

OPTIONS: Extrinsic Treatments

- Family counseling
- Job retraining
- Financial counseling
- Pastoral referral
OPTIONS: Referral to a Specialized Practitioner or Program

- A certified pain specialist or program may be able to provide consultation or serve as a referral resource, while you manage the rest of the patient’s medical care.
Case Presentation

• Sent to substance abuse treatment center for medication controlled withdrawal
• buprenorphine/naloxone 8/2mg 2xd, amitriptyline 50mg at bed, NSAID 600mg 3xd, lidoderm patch
• Mowing the lawn. Going grocery shopping and out to dinner with his wife.
PCSS-O Colleague Support Program and Listserv

• PCSS-O Colleague Support Program is designed to offer general information to health professionals seeking guidance in their clinical practice in prescribing opioid medications.

• PCSS-O Mentors comprise a national network of trained providers with expertise in addiction medicine/psychiatry and pain management.

• Our mentoring approach allows every mentor/mentee relationship to be unique and catered to the specific needs of both parties.

• The mentoring program is available at no cost to providers.

For more information on requesting or becoming a mentor visit: [www.pcss-o.org/colleague-support](http://www.pcss-o.org/colleague-support)

• Listserv: A resource that provides an “Expert of the Month” who will answer questions about educational content that has been presented through PCSS-O project. To join email: pcss-o@aaap.org.
PCSS-O is a collaborative effort led by American Academy of Addiction Psychiatry (AAAP) in partnership with: Addiction Technology Transfer Center (ATTC), American Academy of Neurology (AAN), American Academy of Pain Medicine (AAPM), American Academy of Pediatrics (AAP), American College of Physicians (ACP), American Dental Association (ADA), American Medical Association (AMA), American Osteopathic Academy of Addiction Medicine (AOAAM), American Psychiatric Association (APA), American Society for Pain Management Nursing (ASPMN), International Nurses Society on Addictions (IntNSA), and Southeast Consortium for Substance Abuse Training (SECSAT).

For more information visit: [www.pcss-o.org](http://www.pcss-o.org)
For questions email: [pcss-o@aaap.org](mailto:pcss-o@aaap.org)

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