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Falling Down the Rabbit Hole: A Primer for Chronic Pain Management & Comorbid Substance Use Disorders

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Biography

David Cosio, PhD, is the psychologist in the Pain Clinic and the CARF-accredited, interdisciplinary pain program at the Jesse Brown VA Medical Center, in Chicago. He received his PhD from Ohio University with a specialization in Health Psychology in 2008. He completed a behavioral medicine internship at the University of Massachusetts-Amherst Mental Health Services and a Primary Care/Specialty Clinic Post-doctoral Fellowship at the Edward Hines Jr. VA Hospital in 2009. Dr. Cosio has done several presentations in health psychology at the regional and national level. He also has published several articles on health psychology, specifically in the area of patient pain education. He achieved specialist certification in Clinical Health Psychology by the American Board of Professional Psychology in 2017.

There is no conflict of interest and nothing to disclose.

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DISCLAIMER:

Dr. Cosio is speaking today based on his experience as a psychologist employed by the Veterans Administration. He is not speaking as a representative of or an agent of the VA, and the views expressed are his own.

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Objectives

- Discuss the circuitous journey the field of pain management has undergone.
- Identify high level of comorbidity between opioid use disorders and chronic pain.
- Explain how to apply the new strategies underlined by the CDC guidelines for pain management.
- Select candidates for opioid trials, assess for risk, and initiate opioid therapy, but only after exploring nonopioid and nonpharmacological strategies

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The Circuitous Journey

- US attitudes have shifted repeatedly in response to clinical and epidemiological observations and events in the legal and regulatory communities
- the interface between legitimate medical use of opioids vs its abuse and addiction continues to challenge the clinical community

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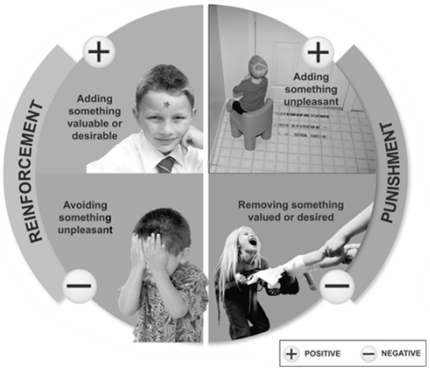
The Circuitous Journey

- Deemed a human right
- Believe entitled to opioids
- Providers feel pressured
- Reinforces patient's beliefs and reliance on medication



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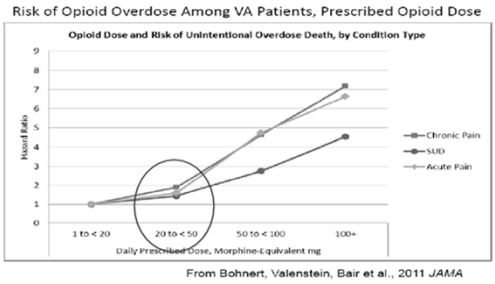
The Circuitous Journey

- Widespread dissemination of opiates
- Lax safety measures placed on storage
- Dramatic rise in opioid misuse and deaths from OD
- Identified by CDC as "public health epidemic"
- CDC released guidelines in march 18, 2016



From Bohnert, Valenstein, Bair et al., 2011 *JAMA*

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Rate of Overdose Deaths

- Prescriptions have increased by more than 300% since 1999
- In 2013, more than 16,000 people died in the US from opioid-related overdose death
- Since 2009, leading cause of accidental death is drug overdose versus motor vehicle accidents
- High profile deaths of Heath Ledger, Brittany Murphy, Prince

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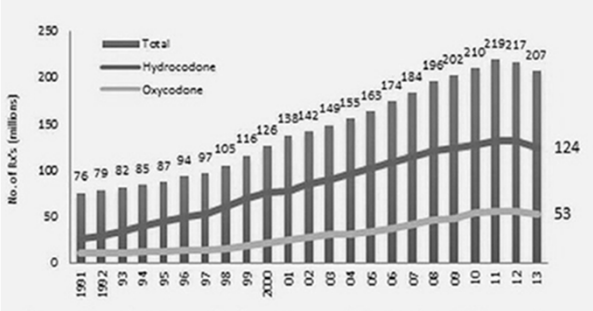
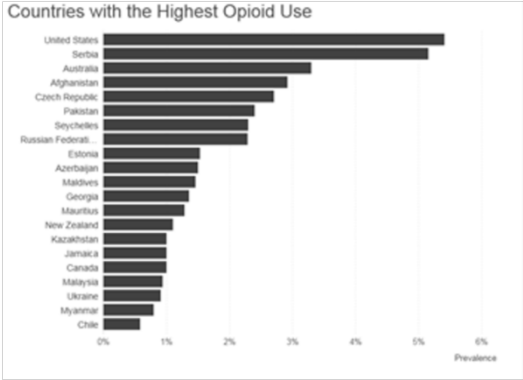
Rate of Prescribing





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New CDC Guidelines

- For initiation, selection, and assessment of opioid therapy risk
- Limited evidence supporting benefits of long-term opioid use outweigh the risks or improves functionality and QOL

Table 1. 12 Recommendations From the Centers for Disease Control and Prevention For Prescribing Opioids for Chronic Pain

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, including realistic goals for pain and function, and should consider how therapy will be discontinued if benefits do not outweigh risks. Clinicians should continue opioid therapy only if there is clinically meaningful improvement in pain and function that outweighs risks to patient safety.
3. Before starting—and periodically during—opioid therapy, clinicians should discuss with patients known risks and realistic benefits of opioid therapy and patient and clinician responsibilities for managing therapy.

Opioid Selection, Dosage, Duration, Follow-up, and Discontinuation

4. When starting opioid therapy for chronic pain, clinicians should prescribe immediate-release opioids instead of extended-release/long-acting (ER/LA) opioids.
5. When opioids are started, clinicians should prescribe the lowest effective dosage. Clinicians should use caution when prescribing opioids at any dosage, should carefully reassess evidence of individual benefits and risks when increasing dosage to 50 morphine milligram equivalents (MME) or more per day, and should avoid increasing dosage to 90 MME or more per day or carefully justify a decision to titrate dosage to 90 MME or more per day.
6. Long-term opioid use often begins with treatment of acute pain. When opioids are used for acute pain, clinicians should prescribe the lowest effective dose of immediate-release opioids and should prescribe 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 7 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. Clinicians should evaluate benefits and harms of continued therapy with patients every 3 months or more frequently. If benefits do not outweigh harms of continued opioid therapy, clinicians should optimize therapies and work with patients to taper opioids to lower dosages or to taper and discontinue opioids.

Assessing Risk and Addressing Harms of Opioid Use

8. Before starting and periodically during continuation of opioid therapy, clinicians should evaluate risk factors for opioid-related harms. Clinicians should incorporate into the management plan strategies to mitigate risk, including considering offering naloxone when factors that increase risk for opioid overdose, such as history of overdose, history of substance use disorder, higher opioid dosages (≥50 MME/d), or concurrent benzodiazepine use are present.
9. Clinicians should review the patient's history of controlled substance prescriptions using state prescription drug monitoring program (PDMP) data to determine whether the patient is receiving opioid dosages or dangerous combinations that put him or her at high risk for overdose. 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.
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.

Source: 1. Dowell D, Haegerich TM, Chou R. CDC Guideline for Prescribing Opioids for Chronic Pain—United States, 2016. JAMA. March 15, 2016. [Epub ahead of print].

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New CDC Guidelines

- Indicate that nonopioid and nonpharmacological (i.e., behavioral) strategies should be first option for treatment
- Require providers to assess for risk of overdose or development of a SUD
- To be keenly aware of their patients' pain levels
- To be aware of their pain management strategies used when opioid medications are prescribed

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New CDC Guidelines

- Use immediate-release opioids when starting
- Start low and go slow
- When opioids are needed for acute pain, prescribe no more than needed
- Do not prescribe ER/LA opioids for acute pain
- Follow-up and re-evaluate risk of harm; reduce dose or taper and discontinue if needed
- Evaluate risk factors for opioid-related harms

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New CDC Guidelines

- Check state prescription monitoring for high dosages and prescriptions from other providers
- Use urine drug testing to identify prescribed substances and undisclosed use
- Avoid concurrent benzodiazepine and opioid prescribing
- Arrange treatment for opioid use disorder if needed

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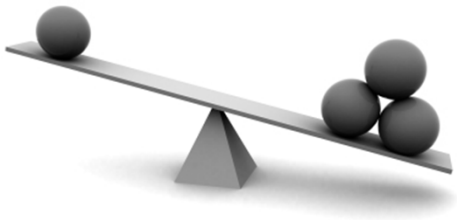
Balancing Act

- The topic of opioid misuse and abuse (and the rising heroin epidemic) has dominated headlines lately
- What does this really mean for chronic pain specialists?
- How does one balance the needs of the legitimate pain patient, with those of society as a whole?



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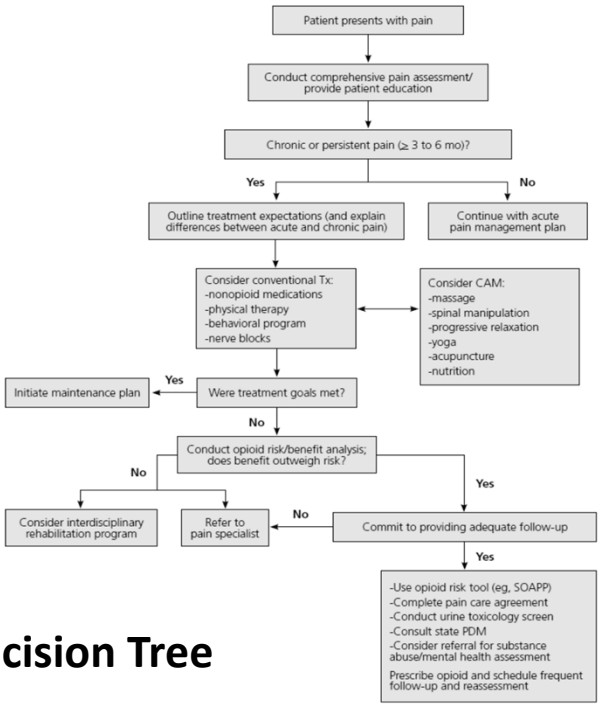

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Use Decision Tree

Decision Tree Steps 1 & 2

STEP 1:

- Identify new or established patient with pain

STEP 2:

- Conduct comprehensive pain assessment:
  - A psychological evaluation
  - An assessment of risk for addiction
  - An appraisal of pain level and function
  - A diagnosis with appropriate differential

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How Is A SUD Defined?

- APA (DSM-5) revised chapter of "Substance-Related and Addictive Disorders" includes substantive changes to the disorders
- Patient is diagnosed with a SUD if he/she exhibits a maladaptive pattern of substance use leading to clinically significant impairment or distress
- As manifested by 2 (or more) of the following, occurring within a 12-month period

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How Is A SUD Defined?

- Impaired Control
  - Using more than intended or is prescribed
  - Persistent desire to use or unsuccessful attempts to quit
  - Increasing time spent using or getting
  - Craving or strong desire to use
- Social Impairment
  - Failing to fulfill major role obligations
  - Giving up important life activities due to use
  - Continuing to use despite knowledge of the negative effects

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How Is A SUD Defined?

- Risky use
  - Using in physically hazardous situations
  - Continuing to use despite knowledge of the negative effects
- Pharmacological criteria
  - Tolerance, needing to use more to get the same effect
  - Withdrawal symptoms from detoxing (nausea, insomnia, anxiety, sweating, trembling)

SEVERITY	RANGE
MILD	2-3/11
MODERATE	4-5/11
SEVERE	6+/11

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Comorbidity of SUD

- There is a wide range in prevalence rates reflected in studies
- Makes it difficult to know what the true incidence of SUD is among chronic pain patients
- In 2005, study indicated that (before the current opioid-epidemic) approximately one-third (32%) of chronic pain patients may have comorbid substance use disorders (SUD's)

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Comorbidity of SUD

- In 2008, among 5,814 patients with chronic pain who were also prescribed chronic opioid therapy, 19.5% had a current SUD diagnosis documented in their medical record
  - Alcohol (73%)
  - Cannabis (16%)
  - Prescription and/or illicit opioids (15%)
  - Stimulants (cocaine 11% and amphetamines 8%)
- In 2011, a review found anywhere from 4% [primary care setting] to 48% [AIDS clinic] of patients with chronic pain have a current SUD

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Increased Risk

- Patients with SUD's have been found to be at greater risk for aberrant medication-related behaviors
- e.g. if prescribed an opioid, there is an increased risk for prescription opioid misuse and abuse
- Patients with comorbid SUD (past and present) are potentially more difficult to treat and are at higher risk for comorbidities (depression, anxiety, sleep disturbances)

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Opioid Misuse vs Addiction

Table 1. Clinical Feature Used to Identify Opioid Misuse and Addiction

Clinical Features	Patients With Pain	Patients Addicted to Opioids
Compulsive drug use	Rare	Common
Crave drug (when not in pain)	Rare	Common
Obtain or purchase drugs from nonmedical sources	Rare	Common
Procure drugs through illegal activities	Absent	Common
Escalate opioid dose without medical instruction	Rare	Common
Supplement with other opioid drugs	Unusual	Frequent
Demand specific opioid agents	Rare	Common
Can stop use when effective alternate treatments are available	Usually	Usually Not
Prefer specific routes of administration	No	Yes
Can regulate use according to supply	Yes	No

Source: McNicholas L. Tip 40: Guidelines for the Use of Buprenorphine in the Treatment of Opioid Addiction. U.S. Department of Health and Human Services, 2004.

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Decision Tree Step 3

STEP 3:

- Determine whether pain is acute or chronic and educate the patient about difference
- Acute pain has sudden onset, lasts no more than 3-6 months, and resolves when the underlying cause is treated
- Chronic pain persists beyond the “normal” time of healing—even if from trauma, injury, or infection—and affected by both physical symptoms and emotional problems

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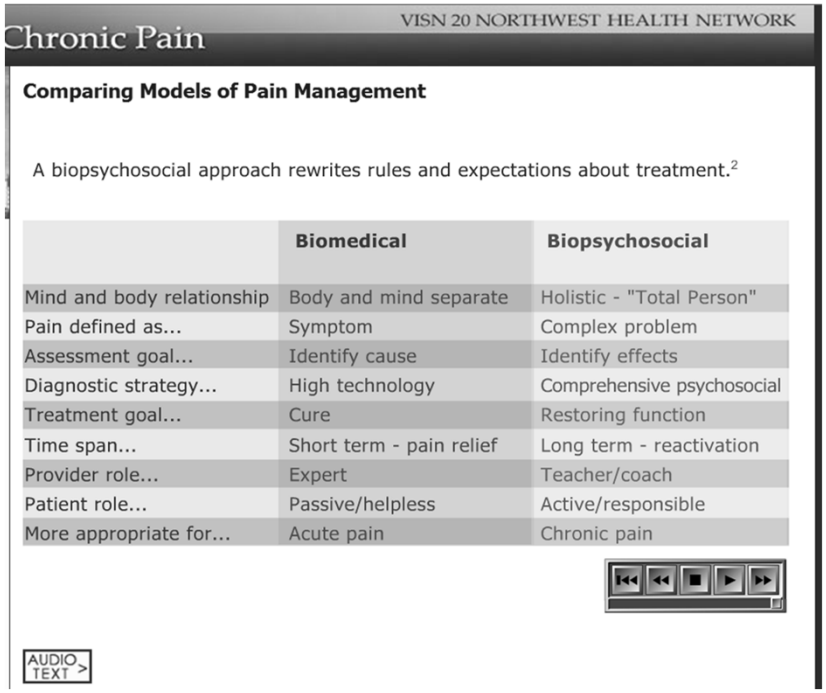

Decision Tree Step 4

STEP 4:

- Outline treatment expectations and review options
- Consider an array of evidence-based therapies
  - NO evidence that one treatment is better then another!
  - Decide based on intensity and how invasive.
  - Use pain treatment ladder
- Review empirically validated CAM therapies

– Expand conversation from solely pain reduction to effective functioning with continued pain

Current State of Research

- Of all the treatment modalities, the best evidence for pain reduction averages around 30% in about half of treated patients (Turk, Wilson, & Cahana, 2011)
- Clinical trials indicate the comparable efficacy of numerous diverse treatment interventions (e.g. acupuncture, behavioral therapy, exercise therapy, NSAIDs) for chronic pain (Keller et al., 2007)
- Overall, the current evidence provides little support for choosing one approach over another.

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Medication Management

- Meta-analysis concluded that opioids result in small improvements in pain severity and function compared with placebo (Furlan et al., 2006)
- Efficacy of NSAIDs established for some patients (i.e., arthritis and back), but not investigated in others (i.e. neuropathic pain and fibromyalgia) (Roelofs et al., 2008; Singh & Triadafilopoulos, 1999)
- Meta-analyses suggest antidepressants result in moderate symptom reduction and superior to placebo (Kroenke, Krebs, & Bair, 2009)
- Best evidence supports efficacy of anticonvulsant drugs for treatment of chronic pain (e.g. gabapentin, pregabalin, carbamazepine) (Attal et al., 2010; Dworkin et al., 2010; Finnerup, Sindrup, & Jensen, 2010)
- Muscle relaxants typically recommended as adjuvant therapy and seem to have restricted role in chronic pain (Arnold, Keck, & Welge, 2000; See & Ginzburg, 2008)
- Topical agents shown to effectively reduce chronic pain in comparison to placebo (Mason et al., 2004)

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Pain Interventions

- Epidural steroid and facet injections are the most commonly used in the U.S. (Manchikanti, 2004)
- Evidence for epidural steroid injection use as long-term monotherapy is not clear (Armon et al., 2007; Friedly et al., 2008)
- Facet injections have some evidence for use with facet joint pain, but not clearly effective for others (Chou et al., 2009a; Luijsterburg et al., 2007)
- In terms of surgery, evidence has rated lumber fusion as “fair,” and both discectomy and laminectomy as “good” (Chou et al., 2009b), with proviso that significant pain can persist even after spinal surgery (DeBerard et al., 2001; Hornberger et al., 2008)
- Several meta-analyses have evaluated efficacy of SCS and concluded that there was moderate evidence for improvement in pain (Chou et al., 2009c; Frey et al., 2009; Taylor, Van Buyten, & Buchser, 2005; Turner et al., 2004)
- Systematic review evaluated efficacy of epidural and intrathecal drug delivery systems, and determined moderate reductions but the long-term effectiveness remains unclear (Turner, Sears, & Loeser, 2007)

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Physical Medicine & Rehab

- Evidence suggests that exercise can effectively decrease pain and improve function, but no conclusions can be made about exercise type (van Tulder et al., 2007)
- Physical medicine approaches are commonly included as components of interdisciplinary pain rehabilitation programs--the embodiment of the bio-psycho-social model
- The reduction of pain after treatment at an interdisciplinary pain rehabilitation program has been reported to be significant (Guzman et al., 2001; Hoff man et al., 2007; Morley, Eccleston, & Williams, 1999)

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Psychological Treatments

- Psychological treatment as a whole results in modest improvements in pain and physical and emotional functioning
- There is insufficient evidence to recommend one therapeutic approach over another (Dixon et al., 2007; Henschke et al., 2010; Hoff man et al., 2007; Jensen & Patterson, 2006; Montgomery, DuHamel, & Redd, 2000)
  - behavioral therapy
  - cognitive-behavioral therapy
  - psychodynamic therapy
  - stress management
  - emotional disclosure
  - biofeedback
  - hypnosis
- Interestingly, modest reductions in pain severity witnessed were similar to those noted with pharmacological, interventional, physical, and rehabilitative approaches (Verhaak et al., 1998)

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Complementary & Integrative Health

CIH is group of medical and health care systems, practices, and products

Categorized into four general categories:
- Mind-body medicine (e.g., biofeedback, hypnosis, yoga)
- Natural-biological based (e.g., aromatherapy and herbs)
- Manipulation-body based (e.g., chiropractor, massage, spinal manipulation)
- Energy medicine (e.g., acupuncture and healing touch)

Chronic pain (general)
- Some evidence for yoga, tai chi, music therapy, mindfulness-based interventions, and hypnosis

Low back pain
- Some evidence for acupuncture, massage, progressive relaxation, spinal manipulation, yoga, herbal products (devil's claw and white willow bark), and topicals (cayenne, comfrey, Brazilian arnica, and lavender)

National Center for Complementary & Integrative Health, 2018

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Complementary & Integrative Health

Osteoarthritis
- Some evidence for acupuncture, massage, tai chi/qi gong,

Rheumatoid arthritis
- Some evidence for dietary supplements (e.g. containing omega-3 fatty acids)

Headaches
- Some evidence for acupuncture, biofeedback, massage, relaxation techniques, spinal manipulation, and tai chi, and herbs (butterbur, feverfew, magnesium, and riboflavin)

Neck pain
- Limited support for acupuncture, massage, and spinal manipulation

Fibromyalgia
- Limited support for acupuncture, tai chi, yoga, mindfulness, biofeedback, and vitamin D supplements

Irritable bowel syndrome
- Promising for hypnotherapy, probiotics, and peppermint oil

Other conditions
- Facial pain, nerve pain, chronic pelvic pain, elbow pain, endometriosis, carpal tunnel syndrome, gout, and cancer pain
- Promising evidence for some approaches

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Selecting Treatments

- Previous experiences and expectations for outcome
- Consider cultural and spiritual influences
- Patient preferences and coping styles
- Type and intensity of pain
- Physical and cognitive abilities
- Concurrent symptoms
- Involvement of friends and family

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The Goldilocks Effect

- Providers in the field tend to be eclectic and flexible treatment methods and try until find something that suits patient
- Research has shown that the overall treatment effectiveness for chronic pain remains inconsistent and fairly poor

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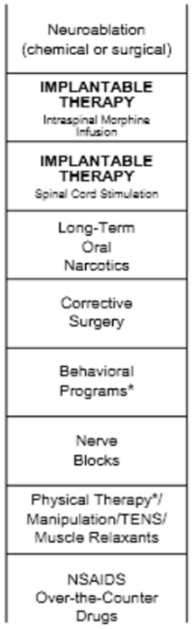
Figure 1: Pain treatment ladder



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The Manumea Effect

- Research results presented are disheartening
- The best evidence for pain reduction averages around 30%
- Clinical trials have indicated comparable efficacy of numerous diverse treatments
- The Manumea is a cousin to the Dodo bird reference to the “Dodo bird effect”

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Patient-Provider Shared Responsibility

- Patients with rewarding relationships have:
  - Better outcomes
  - Less likely to seek assistance from other sources
  - Reduces the risk of conflicting treatment plans
  - Reduces risk of further confusion

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When Should I Consider Opioids?

STEP 5:

- Only after other treatment options have been exhausted should an opioid trial be considered
- Careful risk-benefit analysis is required
- Routine assessment of Analgesia, Activity, Adverse effects, Aberrant behavior, and Affect will help to direct therapy
- If risks outweigh benefits, a referral to pain specialist or interdisciplinary rehab program indicated
- If benefits outweigh risks and clinician's practice able to provide adequate patient support and f/u, an opiate trial may be appropriate

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Decision Tree Step 6

STEP 6:

- Sign opioid agreement
- Random urine tox screens
- Prescription state monitoring
- Opioid risk tools (SOAPP)
- Schedule frequent f/u appts

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Case Study #1

- Patient presents with increasing pain complaints and requests for dose increases while decreasing activity. There is no indication the opioid is helpful.
  - Make sure no new evidence of pathology
  - Review pain agreement—role of opioid hyperalgesia
  - Check urine drug screen
  - Set up more frequent visits
  - Refer to PT for an assessment
  - Offer nonpharmacological options
  - Refer to Pain Education School

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Case Study #2

- You ordered a urine screen during your patient's last visit and it comes back:
  - negative for a substance you are prescribing
  - positive for a substance you did not prescribe
  - Review pain agreement
  - Send out for a confirmatory test—rapid metabolizer?
  - Determine if diversion, sharing, or unsanctioned dose escalation—use pill counts, increase visits, etc.
  - Use state prescription monitoring programs
  - Opiates may have to be tapered or d/c if repeat offender
  - Refer to Addiction Services
  - Offer nonopiate and nonpharmacological options

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Case Study #3

- Patient comes to your visit appearing intoxicated or somnolent/overmedicated. They also continue to report taking their opiates as prescribed.
  - Ask to speak to a family member
  - Determine if drug interaction, overdose, or underlying medical problem—over-the-counter?
  - Use urine screen—if presence of alcohol, medications not prescribed to them, or illicits—d/c opiate related adverse events
  - Refer to Addiction Services and offer detox?
  - Refer to ED or Urgent Care

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