Chronic Pain

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Disclosures

- I have no relevant financial disclosures

Outline

- Introduction: What is chronic pain?
- Summarizing the CDC guidelines
  - Efficacy of chronic opioids
  - Risks of chronic opioids
  - Managing chronic pain
  - Managing chronic opioids
- Conclusion

Chronic Pain

- What is chronic pain?
  - Pain that persists >3 months or past the time of normal tissue healing
  - Result of underlying medical disease, injury, treatment, inflammation, or unknown cause
- Chronic pain as a crisis
  - Category 1 (daily pain): 1 in 10 adults
  - Category 2 (a lot of pain): 1 in 10 adults
  - Category 3 and 4: 2 in 10 adults
    - Associated with worse health status, increased healthcare utilization, and more disability

2012 National Health Interview Study

Chronic Pain

- Chronic pain involves multiple systems
  - Neurophysiologic changes:
    - Primary somatosensory and posterior insular cortex: Altered intensity processing of pain
    - Primary motor, premotor, supplementary motor areas
    - Prefrontal cortex: Altered cognitive processing
    - Parietal cortex: Disrupted introspection, mind wandering, self-referential thought processing
    - Insular and cingulate cortex: Affective aspect of pain processing (unpleasantness, negativity)
    - Amygdala: Altered fear and emotional processing
    - Hippocampus: Memory-related processing
    - Subcortical, midbrain, brainstem: Modified brain circuitry, disruption of reward/punishment/ dopamine function
    - Thalamus: Central pain
    - Basal ganglia: Altered motor and general connectivity

Neuroimaging chronic pain: what have we learned and where are we going? Future Neurol. 2014 Nov; 9(6): 615-626

Efficacy of Chronic Opioids

- CDC guidelines for prescribing opioids for chronic pain asked 5 clinical questions
  1. Are long-term opioids effective?
  2. How harmful are opioids?
  3. What is the best way to prescribe opioids?
  4. How effective are the preventative measures?
  5. What will happen to my patient if I prescribe opioids for acute pain?

Efficacy of Chronic Opioids

- Are long-term opioids effective?
  - Opioids can be moderately effective for pain relief when given for less than 12 weeks
    - Mild benefit seen in functional outcomes
  - No study for chronic pain sufficiently evaluated long-term outcomes related to pain, function, or quality of life

CDC Guidelines for Prescribing Opioids for Chronic Pain—United States, 2016.

Are long-term opioids harmful?

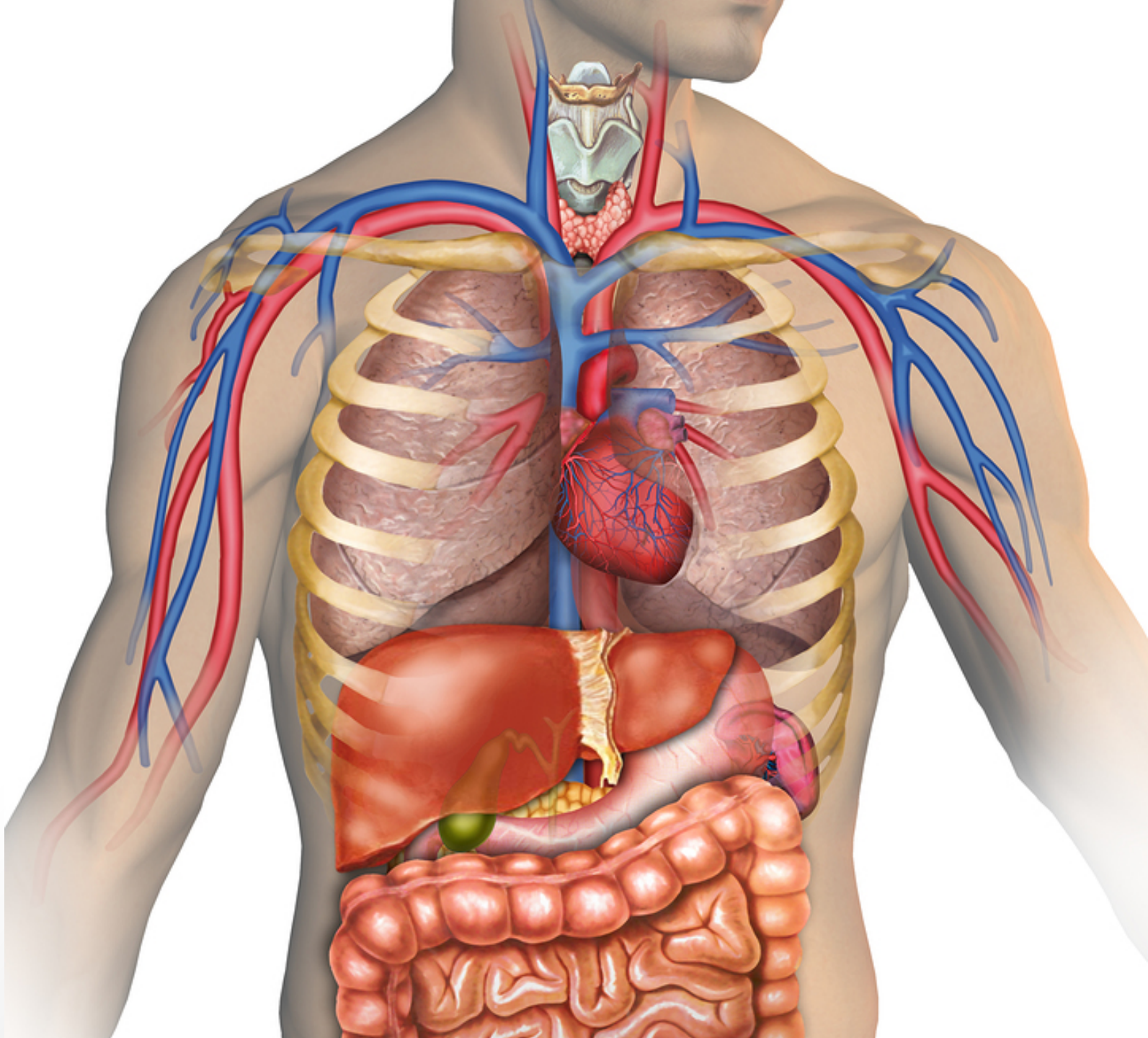
- Are long-term opioids harmful?
  - Long-term opioid therapy is associated with increased risk of opioid misuse
    - 0.7% risk for low-dose (MME<36 mg/day) and 6% risk for high-dose (MME>120 mg/day) chronic opioid use
    - Primary care setting: 3-26% prevalence of opioid dependence
    - Pain specialist: 2-14% prevalence of opioid dependence

CDC Guidelines for Prescribing Opioids for Chronic Pain—United States, 2016.

A Review of Potential Adverse Effects of Long-Term Opioid Therapy: A Practitioner's Guide. Prim Care Companion CNS Disorder. 2012; 14(3): PCC. 11m01326.

Are opioids harmful?

- Central Nervous System
  - Dizziness, sedation
  - Hyperalgesia
  - Depression: 38% of chronic opioid patients
- Respiratory
  - Sleep disordered breathing: 75% of opioid patients
    - Ranging from mild-severe central and/or obstructive sleep apnea
  - Hypoxemia: 10% of opioid patients
  - Respiratory depression with subsequent bradycardia and hypotension
    - 3.7x increase in opioid patients MME>50 mg/day
- Cardiovascular
  - CV events (myocardial infarct, heart failure): 77% increased risk
- Gastrointestinal
  - Constipation: 40-45% of opioid patients
  - Nausea: 25% of opioid patients
  - Vomiting, cramping/bloating, GI bleed
- Musculoskeletal
  - Increased risk of fractures
- Endocrine
  - Hypogonadism (androgen deficiency, sexual dysfunction, infertility, decreased testosterone)
  - Hypoestrogenism: Osteoporosis, oligomenorrhea, galactorrhea
- Immune system
  - Immunosuppression



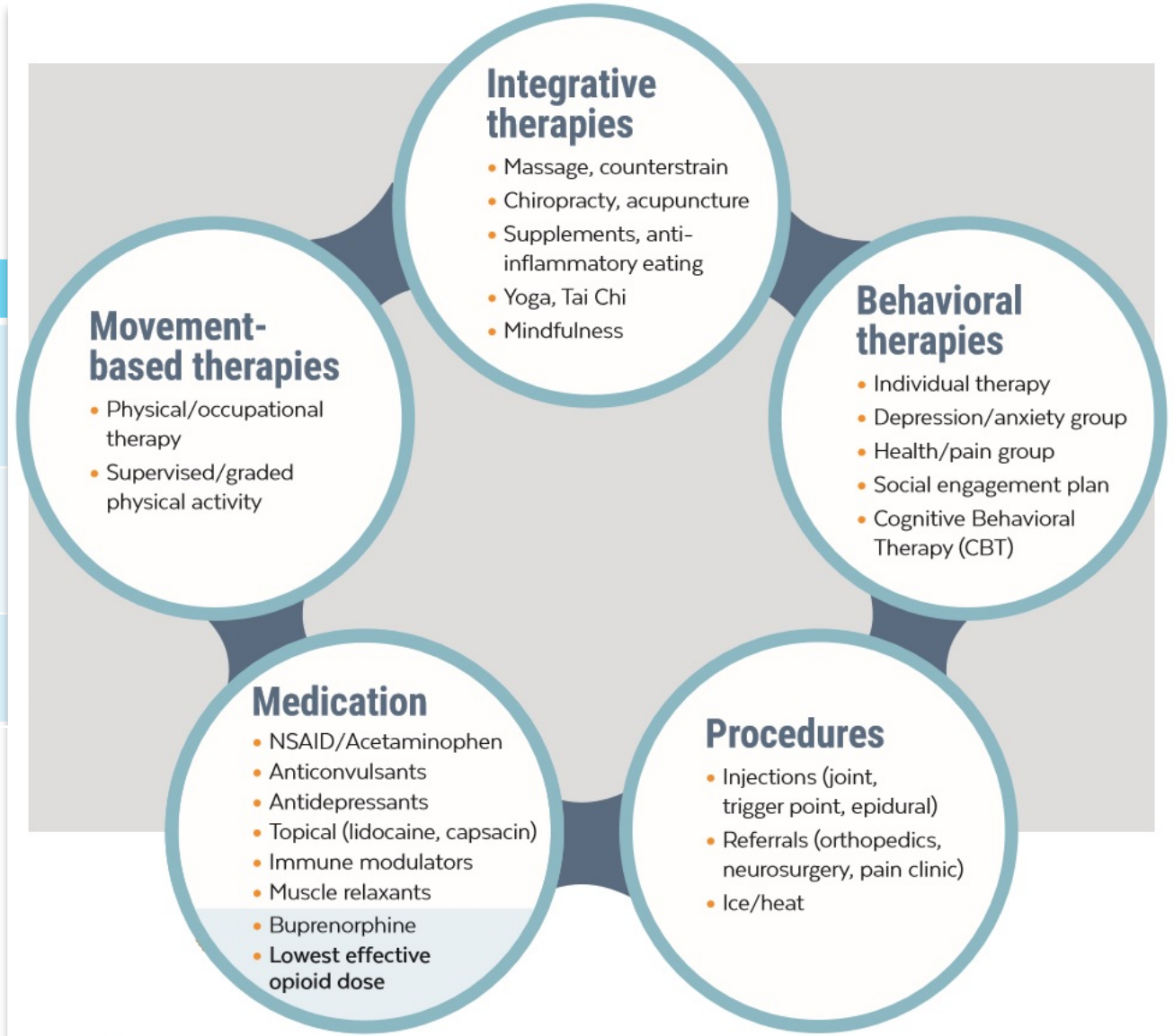
CDC Recommendations

- Nonpharmacologic and nonopioid pharmacologic therapy are preferred for chronic pain
- Before starting opioid therapy for chronic pain, clinicians should establish treatment goals with all patients, including realistic goals for pain and function, and consider how opioid therapy will be discontinued if benefits do not outweigh risks

CDC Guidelines for Prescribing Opioids for Chronic Pain—United States, 2016.

Nonopioid treatments

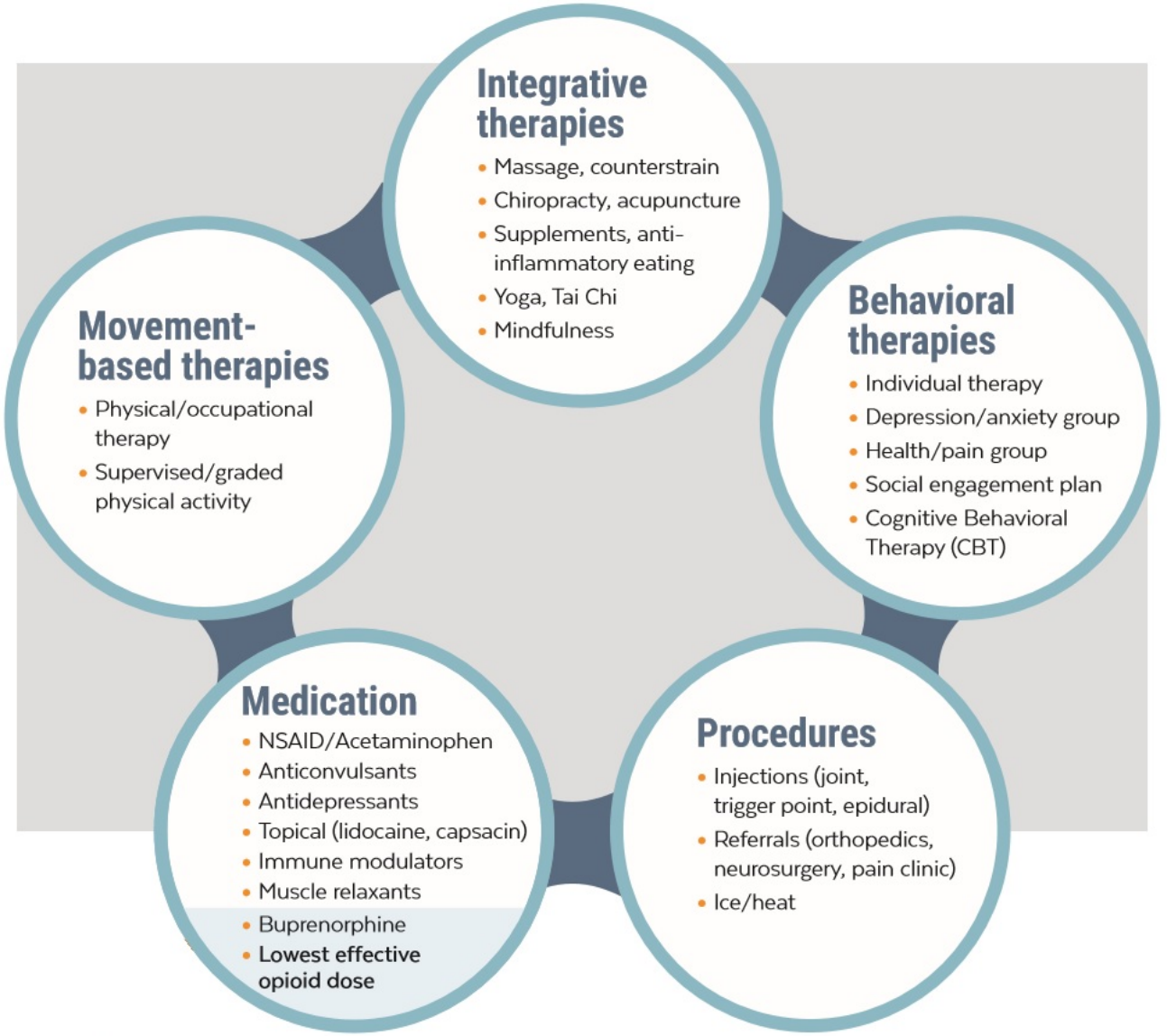
Benefits	Limitations
Promotes active management of chronic pain	Accessibility
Side effect profile lower than chronic opioid therapy	Practicality
	Strength of data typically low-moderate



Opioid Stewardship and Chronic Pain. A Guide for Primary Care Providers.

Nonopioid treatments

Integrative Therapies	Strategies
Massage	Discuss with local PT offering therapeutic massage
Chiropractor	Establish payment plan options for patients
Acupuncture	Establish payment plan options for patients
Supplements, diets	Zinc, Magnesium – cramping Turmeric – inflammation Peppermint, lavender oil – migraines Ketogenic diet – chronic pain
Yoga	Local community/fitness center Mobile app: Down Dog
Tai Chi	Local community/fitness/senior center Youtube: https://www.youtube.com/watch?v=PNtWqDxwwMg
Mindfulness	Mobile app: Calm



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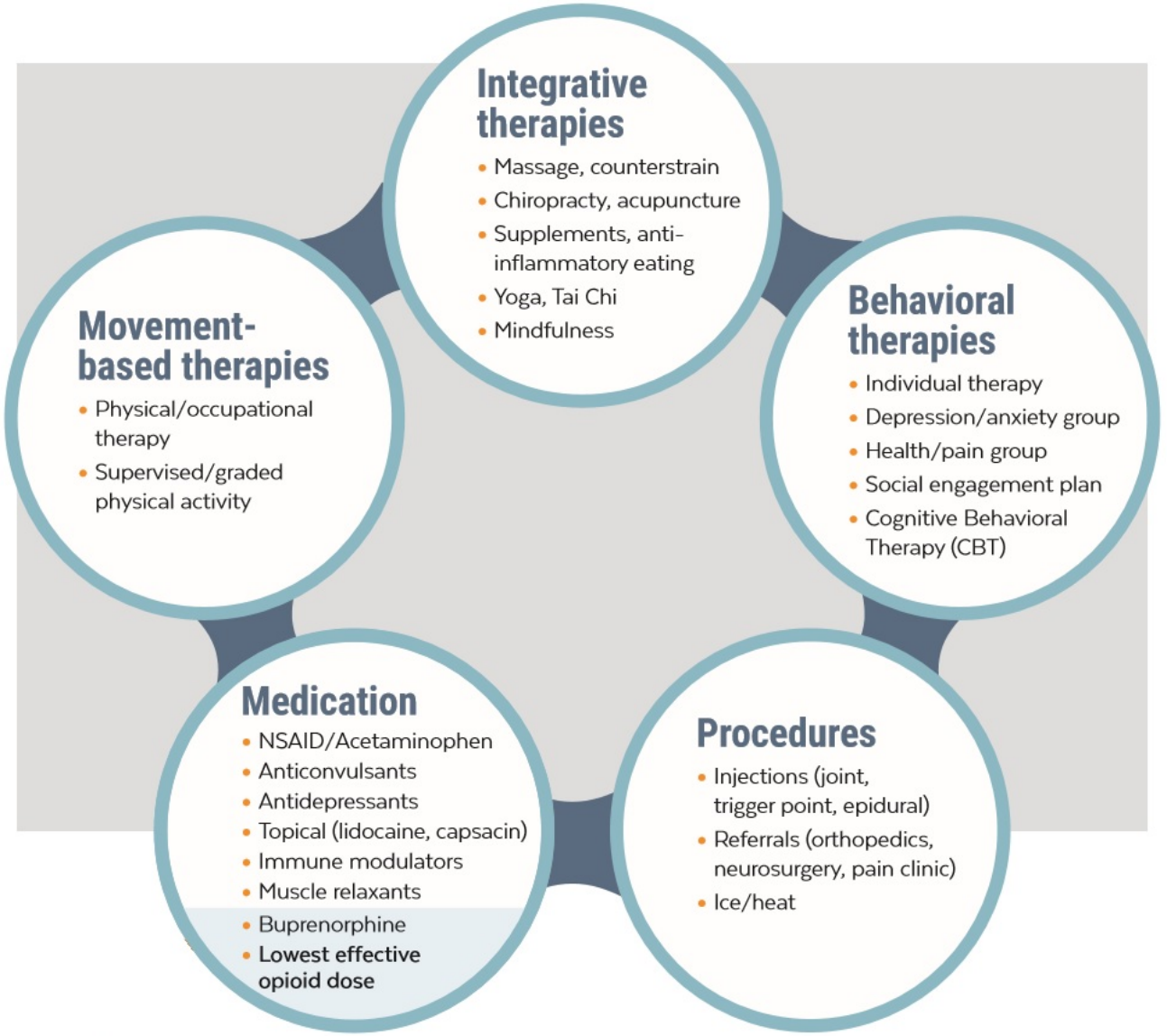
Nonopioid treatments

Behavioral therapies	Strategies
Individual therapy	Discuss with local psychologists regarding referral patterns
Depression/anxiety groups	Community/religious centers
Health/pain group	Community centers
Cognitive Behavioral Therapy	Discuss with local health psychologists regarding referral patterns
Procedures	**Strategies**
Injections	Discuss referral patterns with pain management
Referrals	Discuss referral patterns with orthopedic surgery, neurosurgery, etc.
Ice/heat	Ice – inflammation, arthritis Heat – muscle tightness
Kinesio tape, TENS unit	Muscle, joint stabilization



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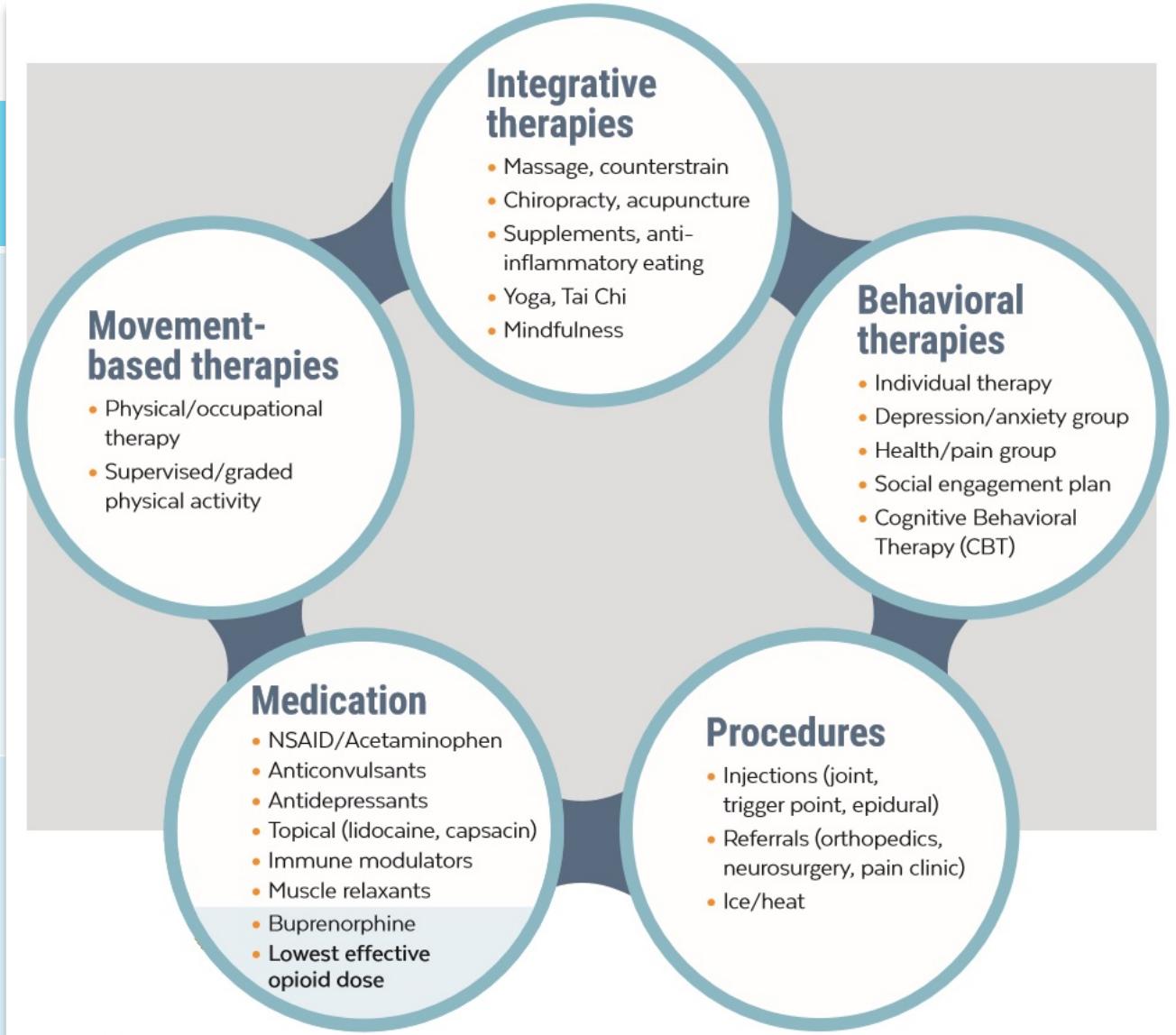
Nonopioid treatments

Musculoskeletal Pain	Myofascial pain	Neuropathic Pain
Acetaminophen (max 3-4 g/day)	Tizanidine 2-4 mg PO BID-TID PRN	Gabapentin 300-600 mg PO TID
Non-selective NSAIDs • Meloxicam 7.5-15 mg PO qday • Naproxen 500 mg PO BID PRN • Ibuprofen 800 mg PO TID PRN	Cyclobenzaprine 5-10 mg PO BID-TID PRN	Pregabalin 50-75 mg PO TID
	Metaxalone 800 mg PO BID-TID PRN	Amitriptyline 10-25 mg PO qhs
	Baclofen 10 mg PO TID PRN	Nortriptyline 10-25 mg PO qhs
	Diazepam 5-10 mg PO BID-TID PRN	Duloxetine 30-60 mg PO qday

Nonopioid treatments

Movement-based therapies	Strategies
Physical/occupational therapies	Discuss payment plan options for patients
Supervised/graded physical therapy	Local community/fitness centers and PT offer supervised group exercise classes
Home exercise	Obtain home exercise handouts from local PT Local community center



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Prescribing opioids

Initiating

- Discuss clinic policies regarding opioid management prior to patient signing opioid contract
  - Refill policy, screening/monitoring tools, weaning/discontinuing situations
- Limit new opioid medications to <1 week and have patient return to clinic to evaluate efficacy, tolerability, and compliance, as well as to review UDS prior to providing longer prescription

Maintaining

- Establish monitoring tool frequency and discuss any aberrancies with patient
- Determine method of monitoring effectiveness and establish treatment goals

Discontinuing

- Establish length of time of trialing opioids (at appropriate dose) before discontinuing opioid therapy due to ineffectiveness
- If patient demonstrates noncompliance to opioid prescribing policy, discuss aberrancies with patient and provide clear weaning instructions as well as resources for medical/psychological support
- Do not “discharge” patients for violation of opioid agreement

Initiating Opioids

Establish Clinic Policies

Prescribing Guidelines

- Refill policy
- Monitoring effectiveness
- Establish visit frequency
- Explain exit strategy

Screening Tools

- Pain agreement
- Opioid Risk Tool (ORT), SOAPP (Screener for Opioid Assessment for Patients with Pain), Brief Risk Interview
  - "How many times in the past year have you used an illegal drug or used a prescription medication for non-medical reasons?"
- Comprehensive evaluation (HPI/PE, imaging/diagnostic test)
  - Concomitant medications (benzodiazepines), medical comorbidities, history of prior overdose or similar adverse reactions to opioids, total daily dose of opioids

Monitoring Tools

- Urine Drug Screens
- Prescription Monitoring Programs
- Pill Counts

Dosing Strategies

- "Start low and go slow"
- Avoid initiating ER opioid medications
- Determine upper dosing limit
- Know when to stop escalating opioids because of persistent pain
- Establish when to defer to pain management
- Prescribe naloxone when starting/changing opioid prescription

Maintaining Opioids

Establish treatment goals

- Improvement in function/QOL
- PEG Assessment (Pain average, interference with Enjoyment of life, interference with General activity)
- Improvement in patient-centric goals
- Clarify expectations of continued opioid therapy

Continue nonopioid and/or nonpharmacologic therapy

Reinforce clinic policies

Monitoring tools

- Check PMP prior to prescribing any controlled substance
- Regular UDS
- Regular re-evaluation appointments
- Consider pill counts when changing medication regimen
- Establish pill wasting policy
- Have patient re-sign pain agreement at least annually
- Prescribe naloxone every 2 years

Regularly discuss opioid risk, side-effects, and opportunities to wean down

- Prescribe naloxone when maintaining high dose opioids (MME>50 mg/day)

Tapering/discontinuing opioid therapy

When to taper

- Risks outweigh benefits
  - Medical comorbidities or adverse side effects
- Noncompliance with clinic policy
  - Medication use for reasons other than chronic pain
- Failed opioid therapy

How to taper

- Individualized plan should be made with patient's input
  - 1 medication at a time (titrate ER before IR, opioid before benzodiazepine)
  - Decrease dose first, then work on dosing interval
- Taper usually involve a monthly reduction of 10-20% of original dose
  - May require breaks and restarts
- Tapers may be as rapid as 50% in situations such as low original dose or life-threatening adverse events
- Ensure patients have access to appropriate resources during taper
  - Mental health providers, pain management, psychosocial support
  - Consider offering naloxone for overdose prevention
  - Obtain UDS while tapering

Conclusion

The effect of chronic pain on patients' function, mood, and behavior makes it resistant to standard medical treatment plans.

Risks vs. benefits of opioid therapy limits its long term use.

Initiating opioid therapy

- Use screening tools prior to start opioids
- "Start low and go slow"
- Know when therapy is ineffective and when to refer to specialists

Maintaining opioid therapy

- Use monitoring tools on a regular basis
- Frequency re-assess and re-educate patients

Weaning/Titrating opioid therapy

- Noncompliance is not a reason to "fire patient"
- Develop weaning plan with patient's input
- Make sure patients have access to appropriate resources during wean.

References

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