

Clinical Care Guidelines for: Chronic Muscular/Skeletal Pain

OBJECTIVE

To provide suggestion to appropriate pain management in chronic muscular skeletal pain.

GUIDELINE

This guideline is compiled by MDwise with references from current [CDC opioid prescribing recommendation](#) and chronic pain management guideline utilized by other credible organizations such as State of California Medical Treatment Utilization Schedule (MTUS) and Institute for Clinical Systems Improvement (ICSI).

DIAGNOSIS & ASSESSMENT

Patient presents with pain complaint/concern

- a. Assess quality of life, function and pain.
- b. Determine the pain generator
 - i. Nociceptive pain – caused by activation of sensory neurons, nociceptors, in response to a noxious stimulus. (Note: site specific pain may have unique treatment methods.)
 - ii. Neuropathic pain – caused by primary lesion or dysfunction of the nervous system.
 - iii. Non-muscular skeletal pain – refer to specialty providers.
- c. Assess physical and behavioral health comorbidities.
 - i. Consider screening for substance use disorder and other comorbidities.
 - ii. Consider specialty referral.
- d. Determine patient barriers.
 - i. Language/communication barrier.
 - ii. Comorbid substance dependency.
 - iii. Financial or legal factors.
 - iv. Low motivation.
 - v. Lack of access to care.
- e. Develop treatment plan.
 - i. Engage patient in shared decision-making.
 - ii. Use motivational interviewing to set realistic goals and expectations.
 - iii. Offer non-pharmacologic therapy as complementary approach to pain management.
 - iv. Encourage functional restoration with goal of long-term self-management by engaging interdisciplinary team.
 - v. Review risks and benefits of treatment options.
 - vi. Reach agreement and obtain informed consent as needed.

RECOMMENDED TREATMENT

NON-PHARMACOLOGIC INTERVENTION

In accordance with the CDC Guideline for Prescribing Opioids for Chronic Pain, non-pharmacologic therapy and non-opioid have shown benefit in chronic pain management:

- Psychotherapy strategies
 - › Biofeedback and cognitive behavior therapy (CBT)
 - › Meditation and yoga
 - › Spiritual support
- Complementary and integrative medicine
 - › Dietary supplement
 - Vitamin C as complex regional pain syndrome preventive approach
 - Anti-inflammatory diet
 - › Stimulatory therapy
 - Transcutaneous electrical nerve stimulation (TENS) unit
 - Acupuncture
 - Thermotherapy and cryotherapy
 - › Energy-based therapy
 - Therapeutic ultrasound
 - Magnet therapy
 - Laser
- Physical rehabilitation modalities
 - › Exercise
 - › Chiropractic/massage therapy
 - › Physical/occupational therapy
- Interventional treatment
 - › Regional analgesia
 - › Surgery

NON-OPIOID PHARMACOLOGIC THERAPY

Although non-opioid pharmacologic therapy is preferred, all medication requires assessment, monitoring and attentive dosing adjustment in chronic pain management. Following is a broad categorization of pain mechanisms with options of non-opioid agents. It is important to identify the generator of pain and choose appropriate treatments for the targeted mechanisms.

Type of Pain	Drug Classes	Note(s)
Inflammatory pain	Acetaminophen NSAID Corticosteroid	Mixed evidence in long-term usage of anti-inflammatory agents for chronic pain management. Corticosteroid use may be contraindicated by infection. Comorbidities and contraindications should be monitored and re-evaluated periodically throughout length of treatment.
Bone pain (Nociceptive)	Acetaminophen NSAID Corticosteroid Bisphosphonate Calcitonin	Co-administration of bisphosphonate and calcitonin can induce significant hypocalcemia. Comorbidities and contraindications should be monitored and re-evaluated periodically throughout length of treatment.
Muscular pain (Nociceptive)	Acetaminophen NSAID Muscle relaxant	Mixed evidence in long-term usage of anti-inflammatory agents for chronic pain management. Muscle relaxants are generally not recommended as first-line due to lack of evidence to long-term efficacy.
Neuropathic pain	Anticonvulsant* Antidepressant (TCA, SSRI)** Local anesthetics (e.g. lidocaine patch) Topical counter irritant (e.g. capsaicin, menthol)	Antidepressants may be useful in addressing concurrent psychiatric disorders. Local anesthetics and topical counter irritant are often inadequate in addressing chronic pain as monotherapies.

*Typical anticonvulsants used for neuropathic pain include gabapentin and pregabalin.

**Typical antidepressants used for neuropathic pain include nortriptyline, duloxetine and fluoxetine.

Note: Oral corticosteroids not for long-term use and should be tapered upon discontinuation.

MANAGEMENT SUGGESTIONS FOR SPECIFIC PAIN

Type of Pain	First-line	Second-line	Alternatives
Chronic low back pain	NSAID Acetaminophen Topical NSAID Muscle relaxant Antidepressant (TCA, SSRI)	Corticosteroid/lidocaine injection Anticonvulsant Lidocaine patch	TENS unit Acupuncture Low dose, Immediate Release (IR) opioids
Chronic osteoarthritis pain	NSAID Acetaminophen	Corticosteroid/lidocaine injection Topical counter irritant	Low dose, Immediate Release (IR) opioids Acupuncture

MANAGEMENT SUGGESTIONS FOR SPECIFIC PAIN

Type of Pain	First-line	Second-line	Alternatives
Chronic posttraumatic extremity pain	Lidocaine patch Antidepressant (TCA, SSRI) Anticonvulsant Topical counter irritant	Topical NSAID	TENS unit Acupuncture Low dose, Immediate Release (IR) opioids
Chronic neuropathic extremity pain	Anticonvulsant Antidepressant (TCA, SSRI) Lidocaine patch Topical counter irritant	Additional antidepressant trials	Low dose, Immediate Release (IR) opioids TENS unit Acupuncture

OPIOID USAGE IN CHRONIC PAIN MANAGEMENT

Per systematic review in the CDC Guideline for Prescribing Opioid for Chronic Pain, long-term (> 1 year) efficacy of opioids in management of chronic pain, function, or quality of life are not established. Most randomized controlled trials present effectiveness within 6 weeks or less. Conversely, significant risks of adverse events are present with chronic opioid therapy, including opioid abuse and dependence, social role withdrawal and increased risk of CNS depression and withdrawal emergencies.

The CDC also recommends re-evaluating and re-establishing treatment goals, including realistic expectation for pain and function, as well as discontinuation strategies when benefits do not outweigh risks. The guideline provides the following recommendations for opioid selection, dosage, duration, follow-up and discontinuation:

- Immediate-release (IR) opioids are preferred over extended-release (ER) forms.
- The lowest effective dosage is preferred with initial opioid use. Caution is warranted at any dose and reassessing benefits and risks is recommended for 50 morphine milligram equivalents (MME) daily or more. 90 MME daily or more should be avoided if possible.
- Within 1 to 4 weeks of therapy, clinicians should evaluate benefits and harms of using opioids to treat chronic pain. Therapy continuation should be evaluated every 3 months or sooner. If benefits do not outweigh harms to continue opioid therapy, other therapies should be optimized and opioid tapering/discontinuation should be considered and encouraged.

MORPHINE MILLIGRAM EQUIVALENCE (MME) CONVERSION

Opioid	Conversion Factor	50 MME/day (unless specified otherwise) CAUTION	90 MME/day (unless specified otherwise) AVOID
Codeine	0.15	333 mg	600 mg
Fentanyl transdermal patch (mCg/hr)	2.4	12 mcg/hr	25 mcg/hr
Hydrocodone	1	50 mg	90 mg
Hydromorphone	4	12.5 mg	22.5 mg
Morphine	1	50 mg	90 mg
Oxycodone	1.5	33 mg	60 mg
Oxymorphone	3	16.7 mg	30 mg

* Strength per Unit X (Number of Units/Days Supply) X MME conversion factor = MME/Day

ASSESSING RISK AND ADDRESSING HARMS OF OPIOID USE

- Prior to and throughout opioid therapy, adverse events should be evaluated periodically. Factors that increase risk for opioid overdose include history of overdose or substance use disorder, 50 MME daily or more, and concurrent benzodiazepine use.
- Prescription drug monitoring program (PDMP) data (e.g., RXINSPECT) are useful to monitor total opioid dosage. PDMP data is helpful for initial and periodic opioid usage evaluations.
- Prescribing opioids and benzodiazepines concurrently should be avoided.
- For patients with substance use disorder, evidence-based treatment (medication-assisted and behavioral therapy) is recommended.

These recommendations apply to all patients outside of active cancer treatment, palliative care and end-of-life care.

Disclaimer: Recommendation of treatment does not guarantee coverage of services.

REFERENCES

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