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Chronic Pain Management: Reducing Harm While Helping the Hurting Veteran

An Educational Aid to Improve Care and Safety with Opioid Therapy

According to the Centers for Disease Control and Prevention (CDC), unintentional overdose deaths parallel per capita sales of opioid analgesics and are now the leading cause of injury deaths among 25-65 year olds in the United States (U.S.). This is of particular concern in our Veteran population where there is a high incidence of posttraumatic stress disorder (PTSD), major depressive disorder (MDD), alcohol use and suicide attempts. All of these disorders are associated with high dose opioid utilization leading to an increased risk of overdose compared to the general population.

Concerns with Increasing Opioid Use

- Drug overdose death rates have increased 102% from 1999 to 2010
- In 2010, 78% of the drug overdose deaths in the United States were unintentional and 60% were related to prescription medications
- In 2011, more than 1.4 million Emergency Department visits were related to pharmaceuticals

Opioid medications are associated with dependence, tolerance, abuse, and risk of accidental overdose. Other methods of managing pain should be utilized prior to considering opioid therapy and continued if patients progress to opioid therapy.

More than one hundred people die from drug overdoses every day in the United States. Most deaths are caused by prescription medications.

Unintentional Overdose Deaths in the U.S.¹,²

Unintentional overdose deaths parallel per capita sales of opioids in morphine equivalents by year.
Veterans are twice as likely to die from accidental overdose compared to the non-Veteran population. Assessment of risk factors is important in our Veteran population especially in returning combat Veterans. Often they present to primary care seeking relief from both physical and psychological pain. Psychological distress may lead to inappropriate use of opioid medications in patients with mental health disorders. Caution should be used in this high risk population.

Veterans with Posttramatic Stress Disorder are more likely to:

- Be prescribed opioids at higher doses
- Receive opioids and sedative hypnotics (including benzodiazepines) concurrently
- Combinations lead to increased risk of unintentional overdose

Opioid use in mental health populations is associated with:

- Opioid-related, alcohol, and non-opioid drug related accidents and overdoses
- Self-inflicted injuries and violence related injuries
- Higher incidence of wounds or injuries

It is important to manage pain safely and effectively

- Chronic pain is the most common cause of work disability
- More than 50% of male VA patients in primary care report chronic pain; the prevalence may be even higher in female Veterans

However...

- Chronic opioid use may not always improve function and quality of life
- The judicious use of opioids should be considered as only one part of the treatment plan
Chronic Pain Treatment Strategies

**ASSESSMENT**
- Review medical history
- Administer a physical exam to determine baseline function and pain; determine if the diagnosis is appropriate for opioid treatment (e.g., relative contraindication, fibromyalgia, headaches, chronic pelvic pain)
- Review prior attempts to treat pain with non-opioid modalities
- Assess risk of medication abuse (e.g., Opioid Risk Tool, psychiatric co-morbidity)
- Determine factors that could put the patient at increased risk for adverse outcomes (e.g., sleep apnea, benzodiazepines)

**NON-OPIOID OPTIONS**
- Create a plan of treatment with patients that incorporates non-opioid interventions
- Patient lifestyle improvements: exercise, weight loss
- Behavioral therapies: support/education groups, psychotherapies
- Physiotherapy modalities: physical therapy, occupational therapy, orthotics, alternative therapies
- Medical interventions: pharmacological, procedural, surgical

**OPIOID TREATMENT**
**PROCEED WITH CAUTION!**
- Perform urine drug testing (UDT) prior to prescribing
- Check state prescription drug monitoring program(s)
- Obtain Informed Consent for Long Term Opioid Therapy
- Agree on and document treatment goals
- Prescribing opioids to patients with respiratory disorders

**SUBSTANCE ABUSE REFERRALS**
- Know local substance abuse treatment teams and use them

**STOP! REASSESS**
- If you have concerns from your assessment, seek help from other providers and specialists (psychiatry, substance abuse, or pain)

**CAUTION:** Re-evaluate treatment plan or consult a specialist if:
- Prescribing more than 120 mg morphine equivalents/day without obvious functional improvement
- Prescribing opioids with benzodiazepines and/or marijuana
- Prescribing opioids to patients with respiratory disorders

**AT EVERY VISIT**
- Assess for changes in function and pain
- Evaluate progress towards treatment goals
- Assess for aberrant behaviors
- Assess for side effects

If no improvement or if aberrant behavior is observed, stop and reassess

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Adapted from: Southern Oregon Opioid Prescribing Guidelines
Setting Expectations for Pain Management

It is important to inform the patient that the goal is to assist them in returning to a satisfying, productive life. However, complete pain relief may not be a realistic goal.

<table>
<thead>
<tr>
<th>Set Realistic Patient Expectations⁶</th>
</tr>
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<tbody>
<tr>
<td>Goal</td>
</tr>
<tr>
<td>• Education</td>
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<td></td>
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</tbody>
</table>

Providing patient education is as important as the appropriate selection of treatment modalities. Inform your patients of potential pain management issues to increase the likelihood of adherence to treatment plans and self-care.

Nonpharmacological Treatment Strategies¹¹

- **Psychosocial interventions**
  - Cognitive-Behavioral Therapy (CBT)
  - Pain school
  - Behavioral groups
  - Support groups

- **Educational interventions** to improve self-management

- **Family interventions**, community support

- **Rehabilitation therapies** including physical therapy and occupational therapy

- **Exercise**

- **Specialty procedures** (e.g. injections, nerve blocks, ablations, neuromodulation)

- **Complementary and alternative therapies** as available (e.g. acupuncture, massage, tai chi)

*Nonpharmacological treatment strategies are effective and should be an integral part of treatment for Veterans with pain.*
Pharmacological Treatment Strategies

Acetaminophen

- Recommended as first-line therapy for the treatment of osteoarthritis and chronic lower back pain\textsuperscript{14,15}

- Moderately more effective than placebo for pain relief and safe at recommended doses\textsuperscript{16}

- Caution patients about acetaminophen in over-the-counter and combination products

### Acetaminophen\textsuperscript{17,18}

<table>
<thead>
<tr>
<th>Usual Adult Dosing</th>
<th>Maximum Dose</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>650-1000 mg po every 4-6 hours as needed (see dosing limits)</td>
<td>3 gm/day in healthy patients</td>
<td>No platelet (&lt;2 gm/day) or anti-inflammatory effect. Adjust dose in alcoholic or hepatic disease. Not associated with GI ulcers (&lt;2 gm/day).</td>
</tr>
<tr>
<td></td>
<td>2 gm/day in hepatic impairment</td>
<td></td>
</tr>
</tbody>
</table>

Non-Steroidal Anti-Inflammatory Drugs (NSAIDs)

Available evidence suggests that all NSAIDs have anti-inflammatory, analgesic and antipyretic effects and have similar efficacy to one another.\textsuperscript{17-20} However, individual patients may report that a particular product works better for them than others in the same class.

- Strategies for preventing gastrointestinal (GI) toxicity:
  - Add a proton pump inhibitor, high dose H2 blocker (e.g. ranitidine >300mg/day) or misoprostol for patients at an increased risk of GI toxicity\textsuperscript{21,22}
  - PPIs reduce upper GI bleeding to a greater degree than do H2 blockers\textsuperscript{21,22}

GI Toxicity Risk Factors\textsuperscript{22}:

- Age >65
- History of GI bleed or peptic ulcer
- Use of steroids, anticoagulants, or other NSAIDs including aspirin
- Helicobacter pylori infection

The risk of GI bleeding increases as the number of risk factors increase.
Minimizing cardiac risk

- NSAIDs are associated with cardiovascular side effects such as hypertension, stroke and myocardial infarction.
- Current evidence indicates that selective COX-2 inhibitors may have a greater risk; populations to avoid use includes patients with a history of cardiovascular disease or high baseline cardiovascular risk.
- Naproxen may have the lowest risk of cardiac side effects.

Other Medications Used to Treat Pain

- Anticonvulsants
- Antidepressants
  - Tricyclic antidepressants (TCAs)
  - Serotonin norepinephrine reuptake inhibitors (SNRIs)
- Topical analgesics

<table>
<thead>
<tr>
<th>Systematic Review of Effectiveness in Diabetic Neuropathy²³-²⁹</th>
</tr>
</thead>
<tbody>
<tr>
<td>Agent (# high quality trials)</td>
</tr>
<tr>
<td>--------------------------------</td>
</tr>
<tr>
<td><strong>Antidepressants (TCAs)</strong></td>
</tr>
<tr>
<td>Amitriptyline (3)</td>
</tr>
<tr>
<td>Desipramine (2)</td>
</tr>
<tr>
<td>Nortriptyline (1)</td>
</tr>
<tr>
<td><strong>Antidepressants (SNRIs)</strong></td>
</tr>
<tr>
<td>Venlafaxine (2)</td>
</tr>
<tr>
<td>*Duloxetine (3)</td>
</tr>
<tr>
<td><strong>Antiepileptics</strong></td>
</tr>
<tr>
<td>Gabapentin (2)</td>
</tr>
<tr>
<td>*Pregabalin (4)</td>
</tr>
<tr>
<td><strong>Topicals</strong></td>
</tr>
<tr>
<td>Capsaicin (2)</td>
</tr>
<tr>
<td>*Lidocaine patch (2)</td>
</tr>
</tbody>
</table>

*Currently not on VA National Formulary; imipramine, carbamazepine and phenytoin are additional options with evidence for use.

Non-opioid analgesics are recommended 1st line for chronic pain. If the Veteran fails non-drug and non-opioid treatment interventions, a trial of opioid therapy may be added if potential benefits outweigh risks.
Opioid Universal Precautions: Reducing the Risk of Opioid Medications

➔ **Reserve opioids** for patients with severe pain when all of the following criteria are met:
  - Inadequate response to non-opioid measures (e.g. a team based multimodal approach, non-opioid analgesics, physical therapy)
  - Potential benefits are likely to outweigh risks
  - Clear and measurable treatment goals are established
  - Patient agrees to participate in a comprehensive pain care plan

➔ **Assess** for factors that could put the patient at increased risk of adverse outcomes
  - Medical conditions in which opioid therapy can exacerbate symptoms (sleep apnea, chronic obstructive pulmonary disease, congestive heart failure, elderly, or history of renal or hepatic dysfunction)
  - Benzodiazepines or other sedative hypnotic medications

<table>
<thead>
<tr>
<th>Absolute Contraindications to Opioid Therapy⁶</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Severe respiratory instability</td>
</tr>
<tr>
<td>2. Acute psychiatric instability or uncontrolled suicide risk</td>
</tr>
<tr>
<td>3. Diagnosed non-nicotine substance use disorder not in remission and not in treatment</td>
</tr>
<tr>
<td>4. True allergy to opioids</td>
</tr>
</tbody>
</table>

➔ **Screen for risk factors** of addiction and misuse and obtain a baseline urine drug test (UDT)
  - Screening tools like the Opioid Risk Tool (ORT) or the Screener and Opioid Assessment for Patient with Pain-Revised (SOAPP-R), may be useful for predicting risk of future aberrant drug-related behaviors
  - Before initiating therapy, obtain data from your state prescription drug monitoring program (PDMP)

*Regardless of the use of screening tools, patients may be classed into three different categories of risk stratification.*
## Level of risk and appropriate treatment settings for opioid management

<table>
<thead>
<tr>
<th>Risk of Misuse</th>
<th>Condition/Situation</th>
<th>Treatment Setting for Opioid Therapy (OT)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Low (no moderate to high risk characteristics)</strong></td>
<td>• Diagnosis with concordant physical exam, medical imaging, laboratory findings</td>
<td>• Provide OT in primary care setting in conjunction with multimodal treatment plan</td>
</tr>
<tr>
<td>(ORT = 0-3; SOAPP-R ≤17)</td>
<td>• High levels of pain acceptance and active coping strategies</td>
<td>• PDMP and UDT yearly or more often as indicated</td>
</tr>
<tr>
<td></td>
<td>• Well motivated patient willing to participate in multimodal treatment plan</td>
<td>• Follow up interval should be no longer than 2-4 weeks after opioid dosage modification and no longer than 6 months for patients on stable opioid doses</td>
</tr>
<tr>
<td></td>
<td>• Attempting to function at normal levels and making progress towards treatment goals</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• UDT and PDMP are appropriate</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• No aberrant drug related behaviors (ADRB) (e.g. lost prescriptions, multiple requests for early refills, unauthorized dose escalation, apparent intoxication, frequent accidents etc.)</td>
<td></td>
</tr>
<tr>
<td><strong>Moderate (high risk characteristics absent)</strong></td>
<td>• Diagnosis with concordant physical exam, medical imaging, laboratory findings and pain in &gt;3 regions of body</td>
<td>• Provide OT in primary care setting with escalated monitoring and caution</td>
</tr>
<tr>
<td>(ORT = 4-7)</td>
<td>• Moderate co-morbid psychological and medical problems well-controlled by active treatment</td>
<td>• Perform updated risk/benefit assessment</td>
</tr>
<tr>
<td></td>
<td>• Risk factors for medication misuse/abuse (e.g. history of substance use)</td>
<td>• Increase frequency of follow up and monitoring to determine stability or if there is a pattern of ADRB</td>
</tr>
<tr>
<td></td>
<td>• Any positive UDT or PDMP with no repeat behavior</td>
<td>• Consider consultation with addiction or behavioral health specialist</td>
</tr>
<tr>
<td></td>
<td>• Moderate levels of pain acceptance and coping strategies</td>
<td>• PDMP and UDT every 6 months or more often as indicated</td>
</tr>
<tr>
<td><strong>High</strong></td>
<td>• Widespread pain without objective signs and symptoms</td>
<td></td>
</tr>
<tr>
<td>(ORT ≥8; SOAPP-R &gt;17)</td>
<td>• Unstable or untreated substance abuse or psychiatric disorder or high suicide or homicide risk</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• History of or current troublesome aberrant drug related behaviors</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Unwilling to participate in multimodal therapy and not functioning close to a normal lifestyle</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Pattern of repeat positive PDMP or UDT (or failure to submit)</td>
<td>• For one or more high risk situations/conditions, OT not appropriate until further evaluation and treatment of high risk finding can occur; consider tapering OT</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• For high risk ORT/SOAPP-R, consider an advanced structured pain clinic</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Consider non-opioid treatment strategies</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Co-manage with SUD or behavioral health specialist</td>
</tr>
</tbody>
</table>
Evaluate Patients for Suicidality

- Patients with chronic pain have an increased risk of suicide
  - **Assess** patient for risk factors including mental health diagnoses, past suicide attempts, intentional self-harm, traumatic brain injury, and psychosocial factors (e.g. recent job loss, legal charges etc.)
  - **Ask** about suicidal ideation, intent, plan, and past attempts
  - **Refer** as needed for treatment of depression and other mental health disorders, and provide patients with supportive psychological therapy and safe drug treatment

**When starting an opioid medication in a patient with a pain syndrome:**

1. **Discuss the patient information guide “Taking Opioids Responsibly”** which includes the risks, side effects and potential benefits of opioid therapy and support this with the opioid pain care agreement “**Consent for Long-Term Opioid Therapy for Pain**”
   - VHA opioid prescribers must complete the patient education and informed consent process (VHA Directive 1005). This requirement does not apply to patients receiving short-term opioids, patients enrolled in hospice, or patients receiving long-term opioids for cancer pain.

<table>
<thead>
<tr>
<th>Serious Risks of Opioid Therapy</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Respiratory suppression</td>
<td></td>
</tr>
<tr>
<td>Addiction/dependence</td>
<td></td>
</tr>
<tr>
<td>Death</td>
<td>Fatal drug interactions</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Potential Adverse Effects of Opioid Therapy</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Common Adverse Effects</strong></td>
</tr>
<tr>
<td>Confusion</td>
</tr>
<tr>
<td>Constipation</td>
</tr>
<tr>
<td>Dizziness</td>
</tr>
<tr>
<td>Dry mouth</td>
</tr>
<tr>
<td>Dysepsia</td>
</tr>
<tr>
<td>Endocrine dysfunction</td>
</tr>
<tr>
<td>Headache</td>
</tr>
<tr>
<td>Hyperalgesia</td>
</tr>
<tr>
<td>Nausea and vomiting</td>
</tr>
<tr>
<td>Pruritus</td>
</tr>
<tr>
<td>Sexual dysfunction</td>
</tr>
<tr>
<td>Sedation</td>
</tr>
<tr>
<td>Sweating</td>
</tr>
<tr>
<td>Tiredness</td>
</tr>
<tr>
<td>Tolerance</td>
</tr>
</tbody>
</table>
Patients Should Be Informed of and Regularly Assessed for Adverse Effects Caused by Opioid Analgesics

2. Obtain a baseline **urine toxicology screen** and emphasize the requirement of urine drug testing.
   - Inform the patient of the reasons for testing
   - Expectations of random testing
   - Consequences of unexpected results

<table>
<thead>
<tr>
<th>Recommended Frequency of Urine Drug Testing (UDT)(^{31})</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Risk category</strong></td>
</tr>
<tr>
<td>Low risk</td>
</tr>
<tr>
<td>Moderate risk</td>
</tr>
<tr>
<td>High risk or opioid doses &gt;120 morphine equivalents/day</td>
</tr>
<tr>
<td>Aberrant behavior</td>
</tr>
</tbody>
</table>

**Urine drug testing should be done at least annually for patients on chronic opioid therapy. When used with a proper level of understanding they can improve your ability to safely and appropriately manage opioid therapy.**

3. **Inform the patient of the treatment goals**, which must include improvement in both function and pain while monitoring for and minimizing adverse effects.

   Measure pain intensity with a Numeric Rating Scale (NRS) and include the following\(^6\):
   - Current pain ("On a scale of zero to ten, where zero means no pain and ten equals the worst possible pain, what is your current pain level?")
   - Most and least pain in the last week
   - "Usual" or "average" pain in the last week

<table>
<thead>
<tr>
<th>Numeric Rating Scale (NRS)(^6,32)</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
</tr>
<tr>
<td>No Pain</td>
</tr>
<tr>
<td>Possible Pain</td>
</tr>
</tbody>
</table>

   **Questions to assess response to current pain medication:**
   - “What is your intensity of pain after taking your current treatment/medication?”
   - “How long does your pain relief last after taking your medication?”

It is important to evaluate pain intensity and patient function at each visit.
Function should be assessed using **objective documentation** and patient report on a monthly basis during the titration phase and every one to six months after the patient is stable on opioids.\(^6\)

<table>
<thead>
<tr>
<th>Quality of Life Scale (QOL)(^3^3)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Printed by permission of the American Chronic Pain Association, 2013.</td>
</tr>
<tr>
<td>0</td>
</tr>
<tr>
<td>1</td>
</tr>
<tr>
<td>2</td>
</tr>
<tr>
<td>3</td>
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<tr>
<td>4</td>
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<td>6</td>
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<td>7</td>
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<tr>
<td>8</td>
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<tr>
<td>9</td>
</tr>
<tr>
<td>10</td>
</tr>
</tbody>
</table>

**Assess overall patient satisfaction with pain management by asking about function and pain at each visit.**

<table>
<thead>
<tr>
<th>Objective Documentation of Function</th>
<th>Overall Patient Function</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physical therapy progress notes</td>
<td>Employment</td>
</tr>
<tr>
<td>Employment records</td>
<td>Enjoyment of life</td>
</tr>
<tr>
<td>Exercise diaries</td>
<td>Emotional distress (depression and anxiety)</td>
</tr>
<tr>
<td>Family reports</td>
<td>Housework, chores, hobbies and other day-to-day activities</td>
</tr>
<tr>
<td>Clinician observations</td>
<td>Sleep</td>
</tr>
<tr>
<td>Numerical rating scales (Pain /Quality of Life Scale)</td>
<td>Mobility</td>
</tr>
<tr>
<td></td>
<td>Self-care behaviors</td>
</tr>
<tr>
<td></td>
<td>Sexual function</td>
</tr>
<tr>
<td></td>
<td>Side effects</td>
</tr>
</tbody>
</table>
Discussing Pain Management

Clear non-confrontational communication from the start is important in pain management. Set realistic expectations with the patient and put them in writing (pain agreement).

- Inform the patient that the goal is to assist them in returning to a productive life
  - Complete pain relief is not a realistic goal
- Discuss a long-term plan and the importance of sticking to it
  - Exacerbation is not a reason to change the plan

<table>
<thead>
<tr>
<th>Samples of Non-Confrontational Rephrasing</th>
</tr>
</thead>
<tbody>
<tr>
<td>Avoid “hot phrases”</td>
</tr>
<tr>
<td>Pain/opioid contract</td>
</tr>
<tr>
<td>There’s nothing wrong with you</td>
</tr>
<tr>
<td>Accept your pain</td>
</tr>
<tr>
<td>You’ll have to live with the pain</td>
</tr>
<tr>
<td>Nothing can be done</td>
</tr>
<tr>
<td>Degenerative</td>
</tr>
</tbody>
</table>

High-Dose Opioid Analgesics

**Literature indicates that increased doses of opioid medications are associated with increased risk of mortality.**\(^4,34-38\) It is important to use the lowest effective dose to reduce the rate of complications, including accidental overdose and side effects.

*Escalating opioid doses does not always result in improved pain and functioning.*
High-Dose Opioid Analgesics

- A 9-fold increase in opioid overdoses has been reported in patients receiving high dose opioids (≥100 mg morphine equivalent dose (MED)) compared to low dose (<20 mg MED))\textsuperscript{35}

- Patients receiving morphine equivalent doses of more than 120 mg/day were more likely to have alcohol or drug-related encounters (alcohol or drug intoxication, withdrawal, or overdose)\textsuperscript{38}

- A reduction in the proportion of patients receiving ≥120 mg MED/day resulted in a 50% reduction in opioid related deaths\textsuperscript{39}

- Opioid induced hyperalgesia may present as\textsuperscript{40}:
  - Treatment effect diminishing in the absence of disease progression
  - Increased levels of pain with increasing dosages

- Studies indicate that patients with severe pain on high-dose opioid analgesics can achieve both reduced pain and improved mood with dose reduction\textsuperscript{7,42-45}

\begin{figure}
\centering
\includegraphics[width=\textwidth]{Fig1.png}
\caption{Risk of Death by Prescription Opioid Overdose for Chronic Non-Cancer Pain\textsuperscript{67}}
\end{figure}

Data shows all unintentional prescription opioid overdose deaths (n = 750) in a random national sample of Veterans Health Administration patients (n =154,684) from 2004-2008. The risk of opioid overdose increased when opioid dose was equivalent to 50 mg/day or more of morphine. Mortality risk related to opioid doses at or above 100 mg/day MED, compared with less than 20 mg/day, was increased seven fold.

\begin{figure}
\centering
\includegraphics[width=\textwidth]{Fig2.png}
\caption{Clinical Pain Stimulus and Opioid-Induced Hyperalgesia\textsuperscript{41}}
\end{figure}

Eighty-two cancer patients reported pain levels before and after receiving a local anesthetic injection (LAI). LAI specific pain intensity, unpleasantness, and behavior pain score were significantly higher in the opioid group compared to the non-opioid group. In addition patients post-injection scores were higher in the high dose (≥200 MED/day) versus the low dose group (p <0.05).

\textbf{With overwhelming evidence for the misuse, abuse and risk of overdose along with limited efficacy of chronic opioid therapy, it is important to re-examine high-dose opioids (>120 mg/day MED) and to consider consultation or dose reduction rather than further escalation of the dose.}
Ways to Avoid Dose Escalation

Opioid rotation

- Considered when there is a failure to maintain or improve functional goals
- Goal is to avoid further dose escalation and minimize potential adverse events
- Evidence though limited indicates that 50–80% of patients with chronic pain who respond poorly to one opioid maintain or improve pain control after being rotated to another opioid

Opioid rotation can also be used to switch patients from short-acting opioids to long-acting medications

<table>
<thead>
<tr>
<th>Single-Step Rotation&lt;sup&gt;6&lt;/sup&gt;</th>
<th>Step-Wise Rotation&lt;sup&gt;68&lt;/sup&gt;</th>
</tr>
</thead>
<tbody>
<tr>
<td>Commonly used tapering strategy</td>
<td>May be preferable when rotating from high doses of opioids. More complex than single-step; consider consulting with advanced pain care provider for assistance.</td>
</tr>
</tbody>
</table>

- Determine new opioid target dose using equianalgesic conversion protocol<sup>*</sup>
- Stop the current opioid-Start new opioid dose:
  - Timing for the first dose of the new opioid is based on the original’s anticipated decline in plasma level and the new opioid’s onset of action

- Determine new opioid target dose using equianalgesic conversion protocol<sup>*</sup>
- Reduce the original opioid in several steps with overlapping increase of the new opioid in similar increments
  - Example: Reduce the original opioid by 10-30% per week while increasing the new opioid by 10-30% per week; Process is usually completed in 3-4 weeks

Provide sufficient immediate release opioid during the rotation process in case dosing changes prove insufficient; this minimizes risk of the patient self-medicating, which can be fatal.

<sup>*</sup>When converting to a new opioid, the starting dose should be 50-67% of the calculated 24 hour equianalgesic dose due to incomplete cross-tolerance.<sup>6</sup>

A notable exception to this general rule is methadone because of its unique pharmacokinetic/pharmacodynamic profile. Methadone has a long and highly variable half-life, with shorter duration of analgesia which contributes to unpredictable accumulation of methadone. This can lead to potentiality life-threatening, and in many cases, fatal respiratory depression, particularly during sleep.<sup>50,51</sup> Inexperienced clinicians should consult with an expert before initiating methadone, even in an opioid-tolerant patient. See pocket cards for suggested equianalgesic doses.

Consider rotating between opioids as it may improve efficacy, reduce side effects, and prevent dose escalation in patients who are receiving long-term opioid therapy.
Lethal Drug Combinations

Other medications when co-administered with opioids may result in potentially fatal outcomes specifically, medications with sedative properties like benzodiazepines.

- In about one-half of the deaths involving opioid analgesics, more than one type of drug was specified as contributing to the death, with benzodiazepines being the most frequent\(^5^3\).

- Extra precautions need to be taken with methadone:
  - Benzodiazepines increase the risk of sleep apnea when given with methadone\(^5^4,5^5\).
  - Benzodiazepines have been associated with an increased risk of death due to methadone toxicity\(^5^6\).

- Inhibitory GABA receptors are highly concentrated in the medullary respiratory centers thus benzodiazepines can potentiate the effects of opioids on respiration frequency\(^5^7,5^8\).

- It has been suggested that benzodiazepines enhance the positive “euphoric” effects of opioids making them commonly abused combination\(^5^8\).

> **Given the risks of co-medication with benzodiazepines and opioid medications, clinicians should avoid this combination.**
Opioid Reduction and Discontinuation

Reduction and discontinuing opioids should only be done after a discussion with the patient. Once a plan is created, both written and verbal instructions should be provided to the patient and their family to ensure successful taper and/or discontinuation.\textsuperscript{6,59} If a patient is resistant, be prepared for unwanted behaviors from the patient and consider contacting your local patient advocate in advance.

Consider tapering opioids in patients with\textsuperscript{6,60-62}:
- Side effects or medical complications
- Stable patients with reduced pain levels
- Opioid misuse and addiction
Consider referring to a pain specialist:
- Inadequate analgesia
Stop the opioid immediately and educate patient about potential withdrawal if there are clear signs of unsafe or illegal behaviors

When the risks outweigh the benefits of opioid therapy\textsuperscript{6}:
- Discuss non-opioid and non-pharmacologic alternatives for the treatment of pain
- Document and offer referral to addiction specialist for patients who demonstrate behaviors that suggest addiction to prescribed opioids or other substances
- Discuss pharmacotherapy options for the treatment of opioid and/or alcohol dependence
- Refer patients with co-occurring psychiatric disorders to appropriate behavioral health providers

Opioid reduction and/or discontinuation strategies\textsuperscript{6,31, 28,64-66}:

\begin{itemize}
  \item As with the decision to taper, the pace of the dosage reduction is related to risk stratification and is variable, the greater the perceived degree of risks the quicker the pace
  \item A slower opioid dose reduction is recommended for patients who have been on opioids for long duration and/or high doses and risks are considered manageable
    \begin{itemize}
      \item A gradual dosage reduction of 10-25% every 1-4 weeks can be used based on the individual patient’s needs and provider preference
      \item The initial dosage reduction may be greater than 25% in selected patients (such as high dosage patients)
    \end{itemize}
  \item Higher risk requires a faster discontinuation rate (see pocket cards for details)
  \item Stop prescribing opioids when there are clear signs of unsafe or illegal behaviors
  \item Do not treat withdrawal symptoms with opioids or benzodiazepines after discontinuing opioids
\end{itemize}
### Consider Use of Adjuvant Medications During Taper

<table>
<thead>
<tr>
<th>Symptom</th>
<th>Treatment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Withdrawal symptoms (not as effective for anxiety, restlessness, insomnia, and muscle aches)</td>
<td>Sample dosing: Clonidine 0.1-0.6 mg oral every 6 hours; hold dose if blood pressure &lt;90/60 mmHg (0.1 mg-0.2 mg QID is commonly used in the outpatient setting)</td>
</tr>
<tr>
<td>Anxiety, dysphoria, lacrimation, rhinorrhea</td>
<td>Hydroxyzine 25-50 mg three times a day as needed</td>
</tr>
<tr>
<td>Myalgias</td>
<td>NSAIDs or acetaminophen (see pocket cards)</td>
</tr>
<tr>
<td>Sleep disturbance</td>
<td>Trazodone (50-100 mg) or gabapentin (300-800 mg) as needed</td>
</tr>
<tr>
<td>Nausea</td>
<td>Antiemetics (e.g. prochlorperazine 5-10 mg every 4 hours as needed)</td>
</tr>
<tr>
<td>Diarrhea</td>
<td>Bismuth subsalicylate (524 mg every 0.5-1 hr, max: 4192 mg/day); loperamide (4 mg then 2 mg after each loose stool, max 16 mg/day)</td>
</tr>
</tbody>
</table>

### Online Resources:

- National pain management website: [www.va.gov/painmanagement](http://www.va.gov/painmanagement)
- VA Clinical Practice Guideline Website: [http://www.healthquality.va.gov/](http://www.healthquality.va.gov/)

*These are general recommendations only; specific clinical decisions should be made by the treating physician based on an individual patient’s clinical condition.*

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References:


This reference guide was created to be used as a tool for VA providers and is available to use from the Academic Detailing SharePoint.

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