Guideline #1 - Avoiding Opiates

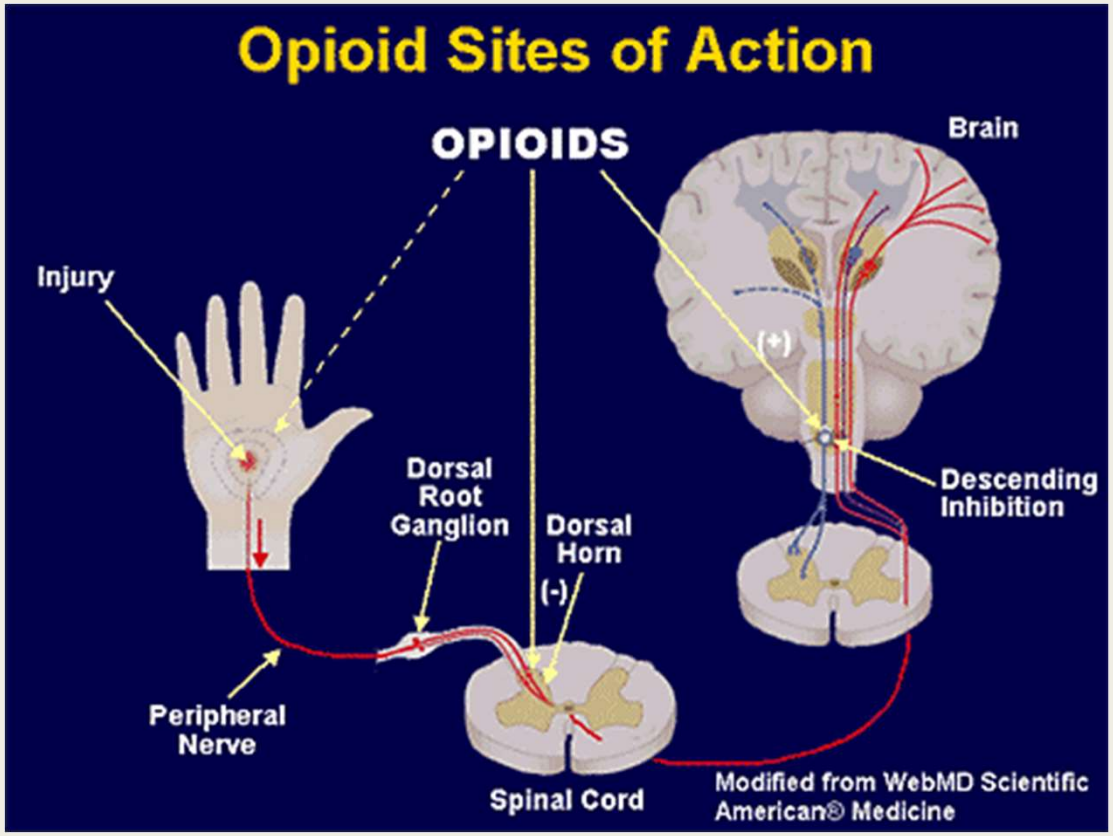
Non-pharmacologic Therapy

- Physical therapy
- Exercise
- Weight reduction
- Smoking cessation
- Counseling
- Acupuncture
- Mindfulness

Non-Opioid Pharmacologic Therapy

- Acetaminophen or NSAIDS
- Topical medication
- Muscle relaxants
- Antidepressants
- Anticonvulsants
- Medical marijuana
- Interventional pain practices

Consider Opioids for Pain > Five



Guideline #2 – When to Initiate Opioids

2. Establish Goals for Pain and Function

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 opioid therapy will be discontinued if the benefits do not outweigh risks. Clinicians should continue opioid therapy only if there is clinically meaningful improvement in pain and function that outweighs the risks to patient safety.

CDC Advises Realistic Benefit
30% Improvement in Pain & Function

ASSESS BENEFITS OF OPIOID THERAPY

Assess your patient's pain and function regularly. A 30% improvement in pain and function is considered clinically meaningful. Discuss patient-centered goals and improvements in function (such as returning to work and recreational activities) and assess pain using validated instruments such as the 3-item (PEG) Assessment Scale:

1. **What number best describes your pain on average in the past week?** (from 0=no pain to 10=pain as bad as you can imagine)
2. **What number best describes how, during the past week, pain has interfered with your enjoyment of life?** (from 0=does not interfere to 10=completely interferes)
3. **What number best describes how, during the past week, pain has interfered with your general activity?** (from 0=does not interfere to 10=completely interferes)

If your patient does not have a 30% improvement in pain and function, consider reducing dose or tapering and discontinuing opioids. Continue opioids only as a careful decision by you and your patient when improvements in both pain and function outweigh the harms.

	Without opioids	With Opioids
Average Pain Score		
Enjoyment of Life		
General Activity		
Total		

Ostelo RW, Deyo RA, Stratford P, et al. Interpreting change scores for pain and functional status in low back pain: towards international consensus regarding minimal important change. Spine (Phila Pa 1976) 2008;33:90–4.

Krebs EE, Lorenz KA, Bair MJ, et al. Development and initial validation of the PEG, a three-item scale assessing pain intensity and interference. J Gen Intern Med 2009;24:733–8.

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	Without opioids	With Opioids
Average Pain Score	6	
Enjoyment of Life	8	
General Activity	4	
Total	18	

Raymond W. J. G. Ostelo et al., "Interpreting Change Scores for Pain and Functional Status in Low Back Pain," *Spine* 33, no. 1 (January 2008), 90-94.
Erin E. Krebs et al., "Development and Initial Validation of the PEG, a Three-Item Scale Assessing Pain Intensity and Interference," *Journal of General Internal Medicine* 24, no. 6 (May 6, 2009), 733-38.

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If your patient does not have a 30% improvement in pain and function, consider reducing dose or tapering and discontinuing opioids. Continue opioids only as a careful decision by you and your patient when improvements in both pain and function outweigh the harms.

	Without opioids	With Opioids
Average Pain Score	6	4
Enjoyment of Life	8	6
General Activity	4	3
Total	18	13

$(18-13)/18 = 5/18 = \mathbf{28\%}$

Not enough of an improvement!

Raymond W. J. G. Ostelo et al., "Interpreting Change Scores for Pain and Functional Status in Low Back Pain," *Spine* 33, no. 1 (January 2008), 90-94.
Erin E. Krebs et al., "Development and Initial Validation of the PEG, a Three-Item Scale Assessing Pain Intensity and Interference," *Journal of General Internal Medicine* 24, no. 6 (May 6, 2009), 733-38.

Have an Exit Strategy

- Criteria for failure of trial/treatment:
  - *Lack of pain reduction*
  - *Lack of improved function*
  - *Persistent side effects*
  - *Persistent noncompliance*
- Document planned taper and referral

Guideline #3 – When to Initiate Opioids

3. Discuss Risks and Benefits

Before starting and periodically during opioid therapy, clinicians should discuss with patients the known risks and realistic benefits of opioid therapy and patient and clinician responsibilities for managing therapy.

Assess Risks of Opioid Therapy

- Personal or family history of substance abuse
- Anxiety or depression
- Pregnancy
- Age 65 or older
- COPD or other underlying respiratory condition
- Renal or hepatic insufficiency
- Possible drug interactions
- Obtaining opioids from multiple providers
- Nausea or constipation
- Respiratory depression

Consider Side Effects of Opioids

- Constipation
- Nausea and vomiting
- Sedation
- Respiratory depression
- Myoclonus
- Impotence/amenorrhea

Guideline #4 – Opioid Selection

4. Use Immediate-Release Opioids When Starting

When starting opioid therapy for chronic pain, clinicians should prescribe immediate-release opioids instead of extended-release/long-acting (ER/LA) opioids.

Guideline #5 – Opioid Dosage

5. Use the Lowest Effective Dose

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)/day, and should avoid increasing dosage to ≥90 MME/day or carefully justify a decision to titrate dosage to ≥90 MME/day.

Morphine Milligram Equivalents (MME)

- The amount of morphine an opioid dose is equal to when prescribed.
- Often used as a gauge of the abuse and overdose potential of the amount of opioid that is being given at a particular time.

Morphine Milligram Equivalents (MME)

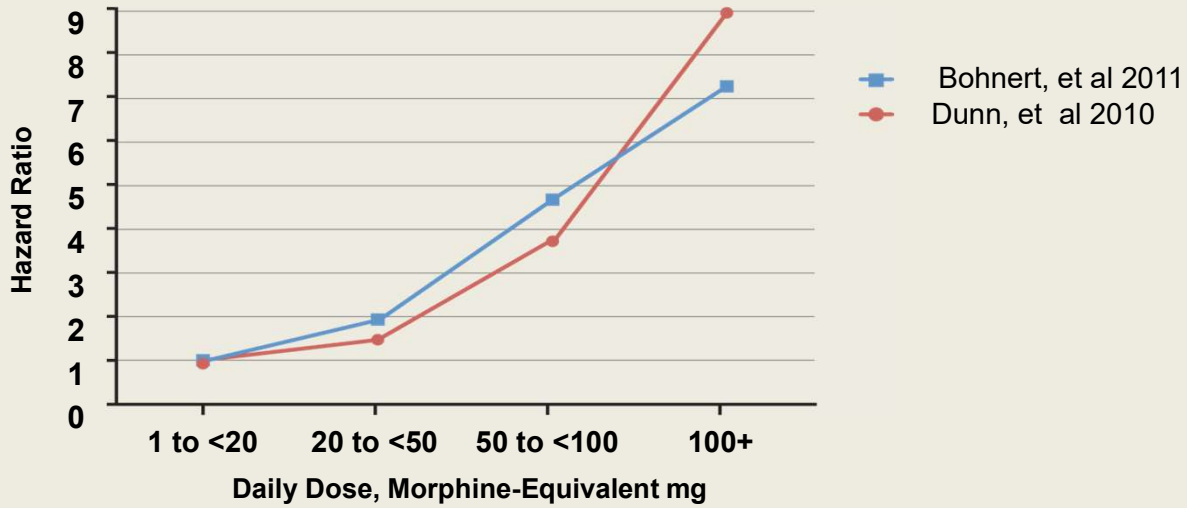
Drug	MME	Half-Life
Tramadol	0.1	
Codeine	0.15	
Morphine	**1.0**	**2.5 hrs**
Hydrocodone	1.0	4 hrs
Oxycodone	1.5	4 hrs
Acetylfentanil	1.5	
Oxymorphone	3.0	
Hydromorphone	4.0	
Heroin	4.0	
Fentanyl	50	3 min
Carfentanil	10,000	7.7 hrs

Calculate Total Daily Dose of Opioids

- Patients prescribed higher opioid dosages are at higher risk of overdose death
- In a national survey of VHA patients with chronic pain receiving opioids from 2004-2009, patients who died of opioid overdose were prescribed an average of 98 MME/day, while other patients were prescribed an average of 48 MME/day.

Dose of Opioid & Risk of Overdose

- Both studies show a dramatic increase in risk between 50 and 100 MME
- This suggests many patients receiving opioids for chronic pain at doses >50 MME/day are at increased risk for life-threatening overdose



[1]Bohnert A, et al. *JAMA*. 2011;305:1315-1321. [2]Dunn K, et al. *Ann Intern Med*. 2010;152:85-92.

Guideline #6 – Opioid Duration

6. Prescribe Short Durations for Acute Pain

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 seven days will rarely be needed.

Guideline #7 – Evaluate Benefits & Harms

Evaluate Benefits and Harms Frequently

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 the benefits do not outweigh the harms of continued opioid therapy, clinicians should optimize other therapies and work with patients to taper opioids to lower dosages or to taper and discontinue opioids.*

Guideline #8 – Address Opioid Use Harms

Use Strategies to Mitigate Risk

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/day), or concurrent benzodiazepine use, are present.*

Guideline #11 – Avoid Opioid & Benzos

Avoid Concurrent Opioid and Benzodiazepine Prescribing

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

Benzodiazepines

Maybe Not Mother's Little Helper

- Common benzodiazepines include diazepam (Valium), alprazolam (Xanax), and clonazepam (Klonipin).
- More than 30% of overdoses that involved opioids also involved benzodiazepines

Benzodiazepines

Maybe Not Mother's Little Helper

Original Research Articles

Cohort Study of the Impact of High-Dose Opioid Analgesics on Overdose Mortality

Nabarun Dasgupta, MPH, PhD,*,† Michele Jonsson Funk, PhD,* Scott Proescholdbell, MPH,‡ Annie Hirsch, MPH,§ Kurt M. Ribisl, PhD,¶ and Steve Marshall, PhD*,†

RESULTS: Opioid analgesics were dispensed to 22.8% of residents. Among licensed clinicians, 89.6% prescribed opioid analgesics, and 40.0% prescribed ER formulations. There were 629 overdose deaths, half of which had an opioid analgesic prescription active on the day of death. Of 2,182,374 patients prescribed opioids, 478 overdose deaths were reported (0.022% per year). Mortality rates increased gradually across the range of average daily milligrams of morphine equivalents. 80.0% of opioid analgesic patients also received benzodiazepines. Rates of overdose death among those co-dispensed benzodiazepines and opioid analgesics were ten times higher (7.0 per 10,000 person-years, 95 percent CI: 6.3, 7.8) than opioid analgesics alone (0.7 per 10,000 person years, 95 percent CI: 0.6, 0.9).

Pain Medicine 2016; 17: 85–98
doi: 10.1111/pme.12907

Benzodiazepines

Maybe Not Mother's Little Helper

Benzodiazepine prescribing patterns and deaths from drug overdose among US veterans receiving opioid analgesics: case-cohort study

Tae Woo Park,[1] Richard Saitz,[2] Dara Ganoczy,[3] Mark A Ilgen,[3 4] Amy S B Bohnert[3 4]

Conclusions Among veterans receiving opioid analgesics, receipt of benzodiazepines was associated with an increased risk of death from drug overdose in a dose-response fashion.

the bmj | *BMJ* 2015;350:h2698 | doi: 10.1136/bmj.h2698

Benzodiazepines

Maybe Not Mother's Little Helper

A Comparison of Cognitive Impairment Due to Benzodiazepines and to Narcotics

BY NELSON HENDLER, M.D., M.S., CINDI CIMINI, M.S., TERENCE MA, AND DONLIN LONG, M.D., PH.D.

In an attempt to determine the source of cognitive impairment in 106 consecutively admitted patients at the Johns Hopkins Chronic Pain Treatment Center, EEG, the Wechsler Adult Intelligence Scale, Memory Quotient, and Bender Gestalt tests were administered. Patients receiving benzodiazepines alone demonstrated alterations in cognitive functioning and EEG evidence of a sedative effect. Patients receiving narcotics alone and a group of patients not receiving medication did not show signs of cognitive impairment. The effects of benzodiazepines on sleep and perception of chronic pain, in combination with the cortical changes that they produce, imply that these drugs should not be used in most patients with chronic pain.

Develop Plan for Safe Practice

- Appropriate trial of opioids with or without adjunctive meds
- Reassessment of pain and function
- Assessment of 4 As
  - *Analgesia*
  - *ADL*
  - *Adverse effects*
  - *Aberrant behaviors*
- Review pain diagnosis and comorbidities
- Document, document, document
- Have an exit strategy

The Ten Universal Precautions

1. Diagnosis with appropriate differential
2. Psychological assessment including risk of addictive disorders
3. Informed consent (verbal or written/signed)
4. Treatment agreement (verbal or written/signed)
5. Pre-/post-intervention assessment of pain level and function

Gourlay, Douglas L. and Howard A. Heit. "Universal Precautions Revisited: Managing the Inherited Pain Patient." *Pain Medicine* 10, no. Supplement 2 (July 2009): S115–23.

Gourlay, Douglas L., Howard A. Heit, and Abdulaziz Almahrezi. "Universal Precautions in Pain Medicine: A Rational Approach to the Treatment of Chronic Pain." *Pain Medicine* 6, no. 2 (March 2005): 107–12.

The Ten Universal Precautions

6. Appropriate trial of opioid therapy adjunctive medication
7. Reassessment of pain score and level of function
8. Regularly assess the 4 A's of pain medicine: analgesia, activity, adverse reactions and aberrant behavior
9. Periodically review pain and comorbidity diagnoses, including addictive disorders
10. Documentation

Gourlay, Douglas L. and Howard A. Heit. "Universal Precautions Revisited: Managing the Inherited Pain Patient." *Pain Medicine* 10, no. Supplement 2 (July 2009): S115–23.

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Principles of Responsible Opioid Prescribing Treatment Plan

- These key points should be resolved before initiating opioid therapy:
  - The diagnosis is established and an opioid treatment plan has been developed.
  - The patient's risk level has been established
  - A decision has been made on whether you can treat this patient alone or need to enlist other consultants to co-manage (such as pain or addiction specialists).

Principles of Responsible Opioid Prescribing Treatment Plan

- Non-opioid modalities have been considered, such as:
  - A pain rehabilitation program
  - Behavioral strategies
  - Noninvasive and interventional techniques