Tapering Opioids – Best Practices*

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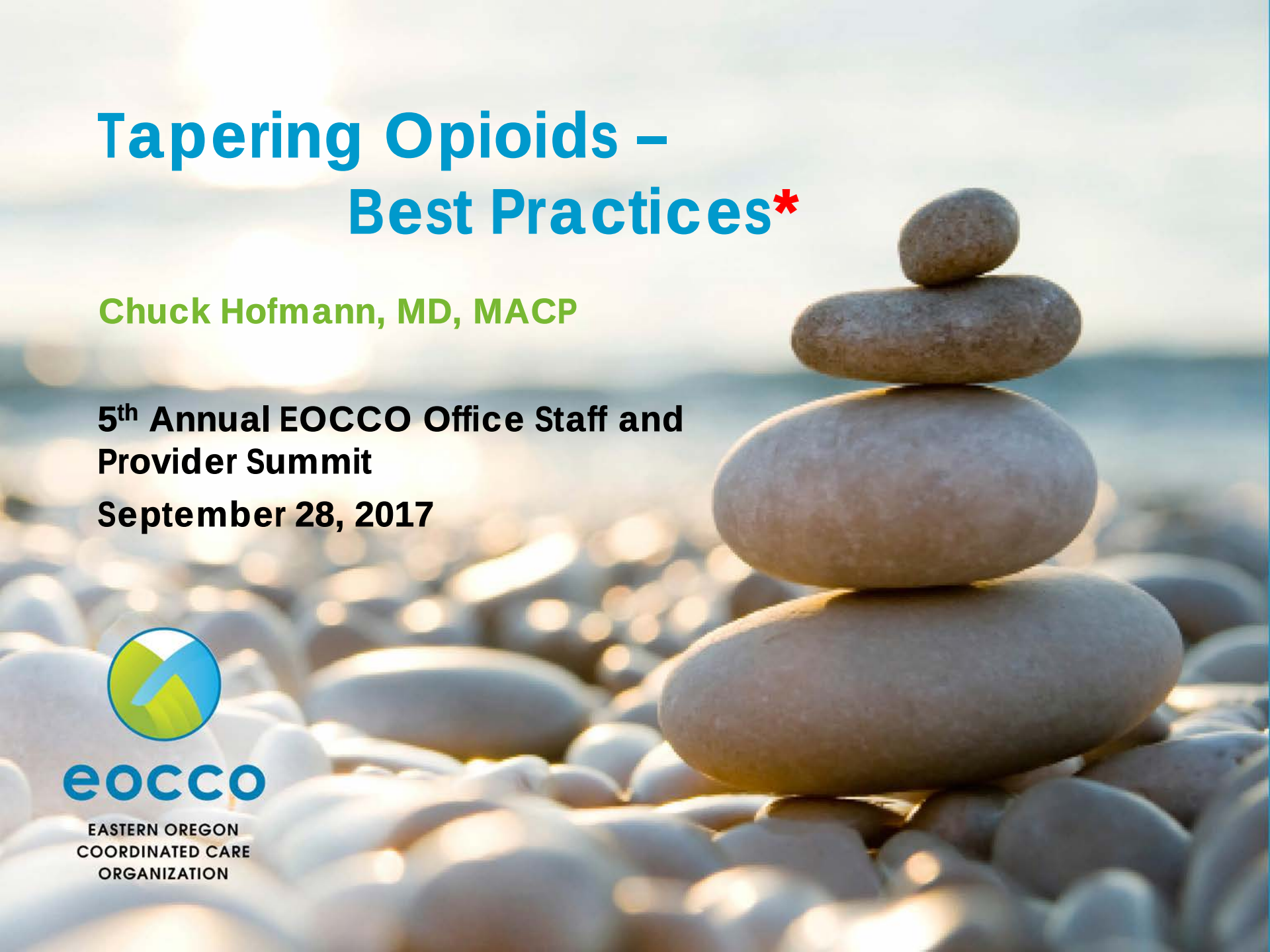

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Disclosure

- No Conflicts of Interest to report

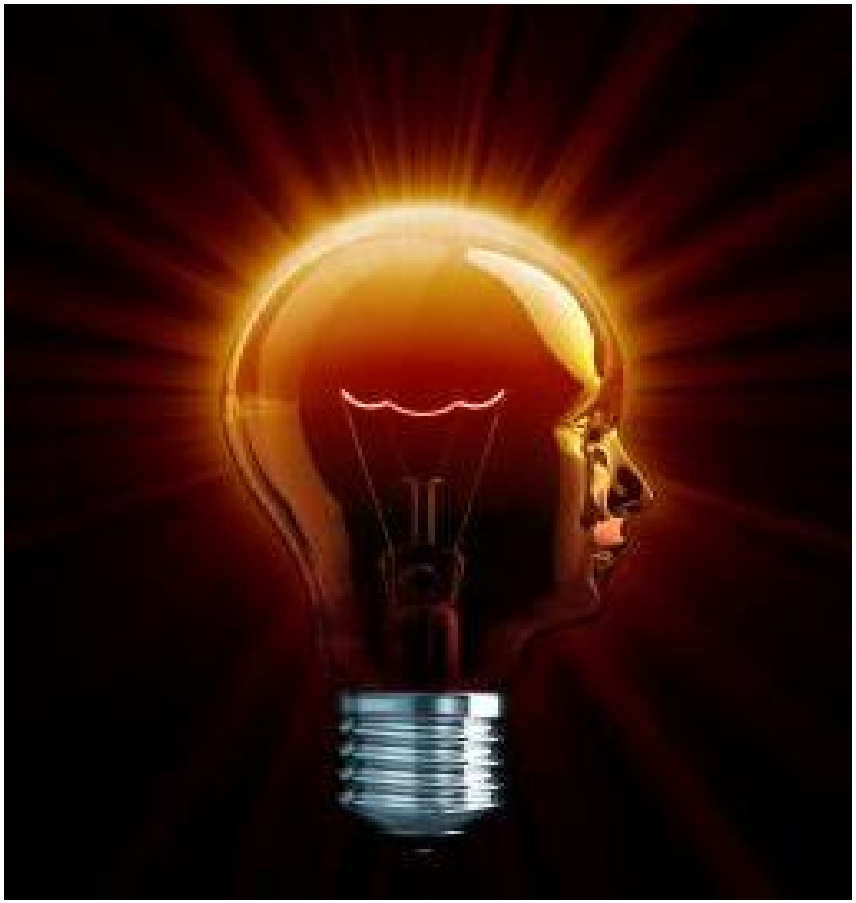
Learning Objectives

- Understand why long-term high-dose opioid therapy for non-cancer diagnoses is usually counterproductive
- Understand the steps necessary to ensure long-term high-dose opioid therapy will be safely tapered
- Understand common problems encountered when tapering long-term high-dose opioid therapy.

“Perception of Pain”

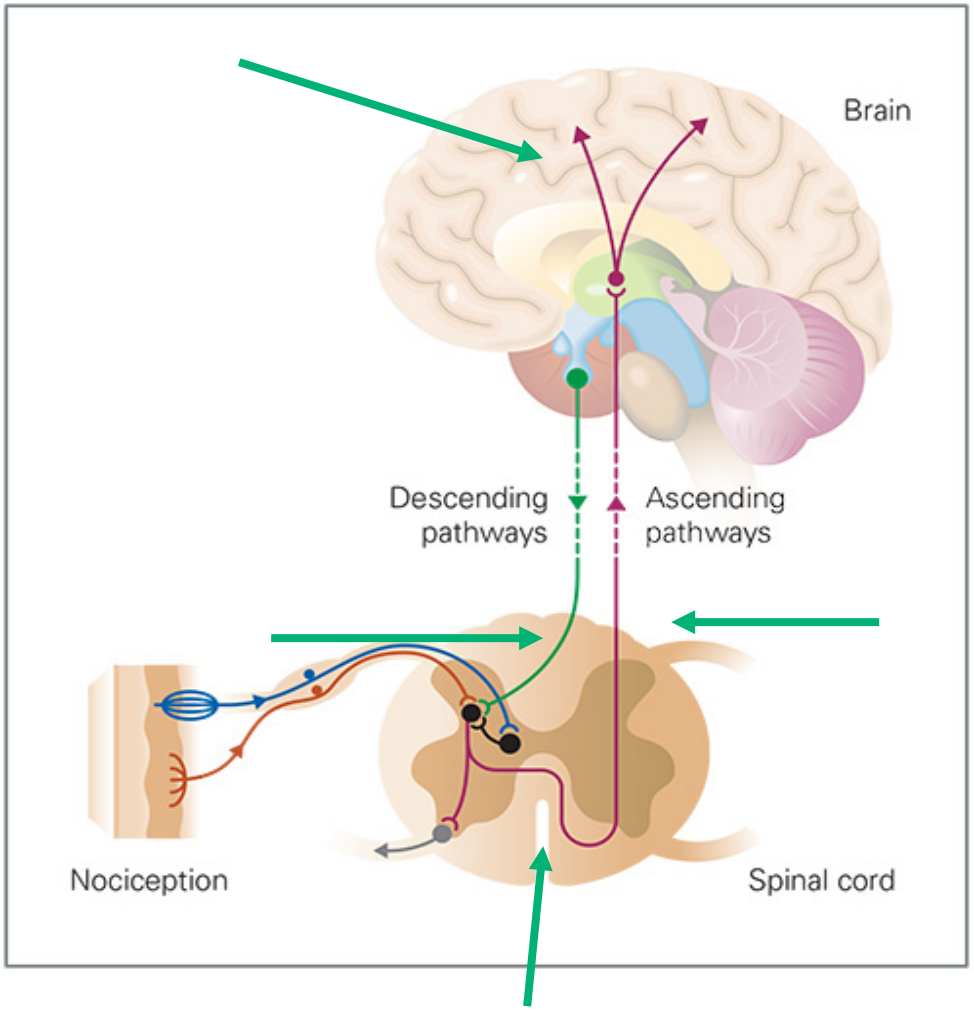
“Perception represents a combination of events in the nervous system, including nociception as well as conscious emotional and psychosocial components that determine the nature of the final message that is delivered.”

-Melzack and Wall 1965



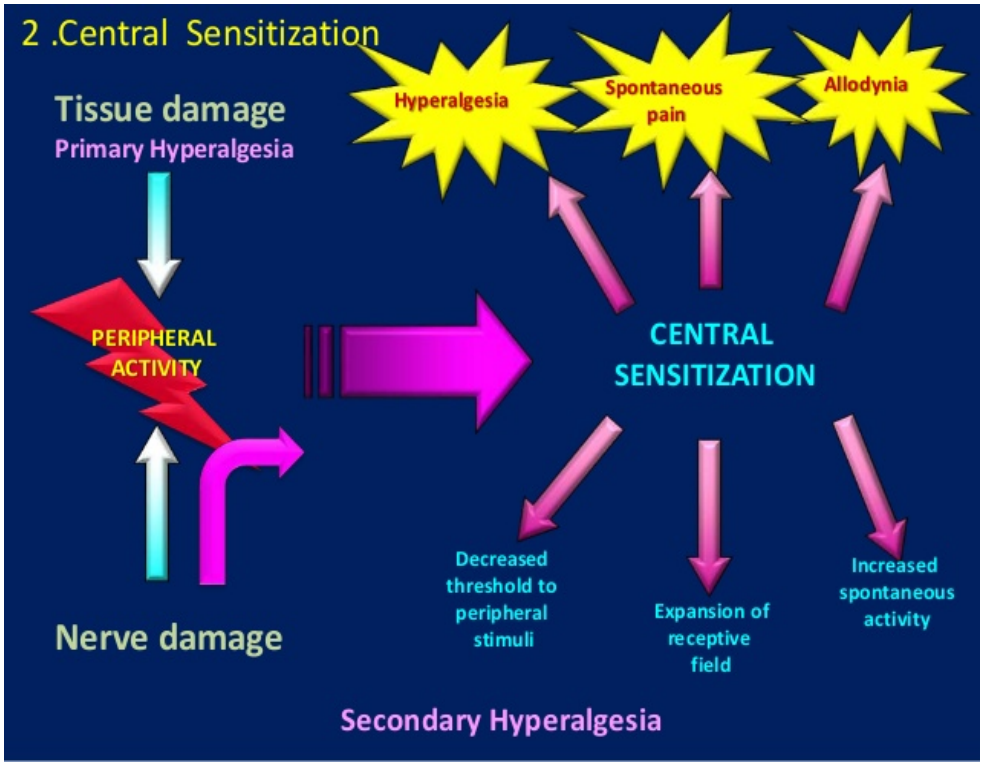
Perception of Chronic Pain

- Perception Components
  - Nociception: Signal to brain
  - Neuromodulation: Regulation of that signal.
    - Thresholds of signals can be modified in the spinal cord
    - Other nerve pathways can be "recruited"
    - Emotional and psychosocial components contribute



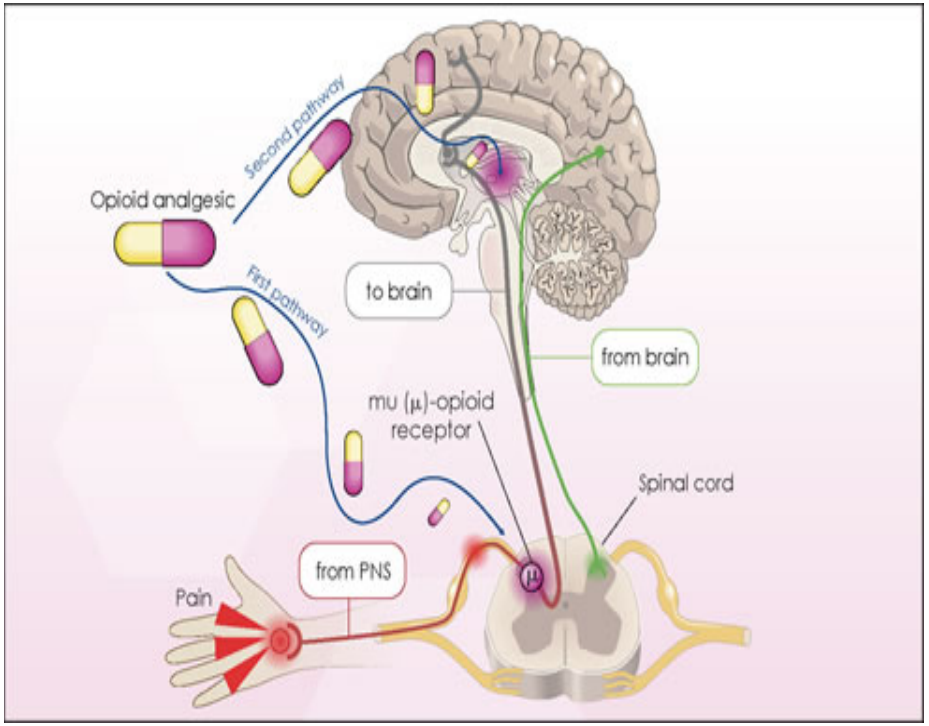
Central Sensitization

Oftentimes, the nervous system undergoes a “wind-up” process and becomes regulated into a persistent state of high reactivity.



Opioid Tolerance and Opioid–Induced Hyperalgesia (OIH)

- Long-term high-dose opioid therapy for non-cancer pain is characterized by the loss of efficacy overtime due to neuromodulation combined with tolerance.
- In addition, many people who receive high doses of opioids for the treatment of pain over long periods of time develop OIH and become more sensitive to certain painful stimuli despite the absence of disease progression.
- Furthermore, pain related to opioid discontinuance is frequently related to withdrawal rather than to the underlying pain condition
- Opioid dose reduction most often results in improvements in pain, function, and quality of life.



Reasons for Tapering Opioids

- Long-term high-dose prescription opioid therapy in patients with chronic non-cancer pain with therapeutic failure
- Long-term high-dose prescription opioid therapy in patients with chronic non-cancer pain without therapeutic failure
- Failure to show significant analgesia or functional improvement at any dose
- Unacceptable side effects
- Refusal to monitor (eg, UDS)
- Refusal to abstain for other drug use (methamphetamine, THC, alcohol, etc)
- Concomitant benzodiazepine use
- Medical conditions (sleep apnea, COPD, etc)
- Patient request
- Substance (including Opioid) Use Disorder (Refer)
- Prescription drug diversion (Refer)
- Government mandated

Opioid Use Disorder

A problematic pattern of opioid use leading to clinically significant impairment or distress manifested by at least two of the following occurring within a 12-month period:

- Opioids are often taken in larger amounts or over a longer period than was intended.
- There is a persistent desire or unsuccessful efforts to cut down or control opioid use.
- A great deal of time is spent in activities necessary to obtain the opioid, use the opioid, or recover from its effects.
- Craving (a strong desire or urge to use opioids).
- Recurrent opioid use resulting in a failure to fulfill major role obligations at work, school, or home.
- Continued opioid use despite having persistent or recurrent social or interpersonal problems caused or exacerbated by the effects of opioids.
- Important social, occupational, or recreational activities are given up or reduced because of opioid use.
- Recurrent opioid use in situations in which it is physically hazardous.
- Continued opioid use despite knowledge of having a persistent or recurrent physical or psychological problem that is likely to have been caused or exacerbated by the substance.
- "Tolerance" as defined by either of the following:
  - A need for markedly increased amounts of opioids to achieve intoxication or desired effect.
  - A markedly diminished effect with continued use of the same amount of an opioid.

DSM-V, 2013

Considerations Prior to Tapering Opioids in Patients Receiving High-Dose Long-Term Opioid Therapy for Non-Cancer Pain

- Best practice includes starting long-term opioid therapy in fewer patients and avoiding opioid dose escalation
- Tolerance and habituation can occur within 30 days of beginning opioid therapy
- There is no support for involuntary or precipitous tapering. Best practice is to determine goals of taper (target and timeframe) with patient as a partner. "Buy in" may take time.
- A team-based approach incorporating close monitoring and psychosocial support emphasizing nonpharmacological and self-management techniques works best. (Now if we could only convince the payers)
- Patient needs to understand some initial transient increase in pain is expected.

“Difficult to Taper Patients” (consider consultation)

- Methadone with MED over 30 (7.5 mg/d)
- Any dose of Fentanyl
- Any other opioid with MED over 200
- Long term (> 5 years) use of MED over 50
- Mental illness, particularly depression
- High ORT score, including adverse childhood event(s)
- History of Substance Use Disorder

EOCCO Taper Schedule

Tapering Plan for Member with Chronic, Non-Cancer Pain

Member's Name:

Short and long acting opioids should be tapered separately. Avoid reversing taper, slow taper rate instead

Tapering short acting opioids: As a general rule, if the % of total MED is < 10% of the initial total MED of all opioids, taper by 10% of the initial total dose every 3 days. If the % of the total MED is > 10% of the initial total MED, taper by 10% of the initial total dose every week.

Tapering long acting opioids: As a general rule, taper by 10% of the initial total dose every week until down to 30% of the initial total dose. Then, taper by 10% of the remaining 30% of the initial total dose every week.

Highly motivated patients may prefer a more rapid taper. See http://www.oregonpainguidance.org for more information about safe opioid prescribing and tapering.

Short-term adjunct therapies including clonidine, hydroxyzine, and loperamide may be used to treat withdrawal symptoms.

Do not treat suspected withdrawal symptoms with benzodiazepines or additional opioids.

Initial Total Dose

Opioid Type	Baseline Opioid	Current mg/Day	Current MED/Day	% of Total MED
Short –Acting				
Long Acting				
		Total Morphine Equivalent Dose:		

Taper Short Acting Opioids every week if > 10% of total MED if combined with a long acting opioid.

Start Date

Week	Day	Total mg/day: dosage schedule	MED of Short Acting Opioid	Week	Day	Total mg/day: dosage schedule	MED of Short Acting Opioid
1	1-7			6	36-42		
2	8-14			7	43-49		
3	15-21			8	50-56		
4	22-28			9	57-63		
5	29-35			10	64-70		

Next, taper long acting opioids weekly by 10% reduction from Initial Total Dose until down to 30% of the initial total dose. Then, taper weekly by 10% the remaining 30% of the Initial Taper Dose (the final part of the taper usually needs to be done slower than it is done initially) . Consider converting to short acting medication.

Week	Date	Total mg/day: dosage schedule	MED of Long Acting Opioid	Week	Date	Total mg/day: dosage schedule	MED of Long Acting Opioid	Week	Date	Total mg/day: dosage schedule	MED of Long Acting Opioid
1				7				13			
2				8				14			
3				9				15			
4				10				16			
5				11				17			
6				12				18			

http://eocco.com/pdfs/EOCCO%20Taper%20Schedule%20FINAL.xls

Morphine Equivalent Doses (MED) (Morphine Milligram Equivalents (MME)) for commonly prescribed opioids

(http://www.agencymeddirectors.wa.gov/calculator/dosecalculator.htm)

Opioid	Conversion Factor
Tramadol	0.1
Codeine	0.15
Hydrocodone	1
Oxycodone	1.5
Hydromorphone	4
Methadone	4-12[1]
Fentanyl transdermal (mcg/hr)	2.4[2]
Buprenorphine	10-30[3]

1. 4 for 1-20 mg/d, 8 for 21-40 mg/d, 10 for 41-60 mg/d, and 12 for over 60 mg/d
2. Note this factor converts the amount of daily fentanyl received transdermally into daily MME
3. Buprenorphine is a very potent opioid but due to its opioid receptor agonist /antagonist properties , determining a conversion factor is problematic

Opioid Withdrawal Symptoms

Symptom
Pain (Musculoskeletal including muscle aches, joint pain)
Anxiety, Restlessness, Agitation, Tremulousness
Diaphoresis
Abdominal Pain, Nausea, Diarrhea
Rhinitis, Mydriasis, Tearing
Yawning
Gooseflesh
Palpitations

Adjuvant Opioid Withdrawal Medications

Symptom	Medication (prn)	Considerations
Diaphoresis, Anxiety, Agitation	Clonidine, 0.1 mg up to tid	Avoid if SBP<100 Dizziness, oversedation
Anxiety	Hydroxyzine, 25-50 mg qid	Oversedation
Nausea	Ondansetron, 4mg tid	
Pain	Acetaminophen, 500 mg q4h	
Pain	Ibuprofen , 400 mg qid with food	GI upset, PUD, renal disease, warfarin use
Diarrhea	Loperamide, 4 mg to start then 2 mg after each loose stool	16 mg/d maximum dose, anticholinergic side effects
Neuropathic Pain	Gabapentin, 200 mg tid	Dizziness, oversedation

Key Points to Consider Including in a Taper Plan Agreement (in addition to Pain Contract Criteria)

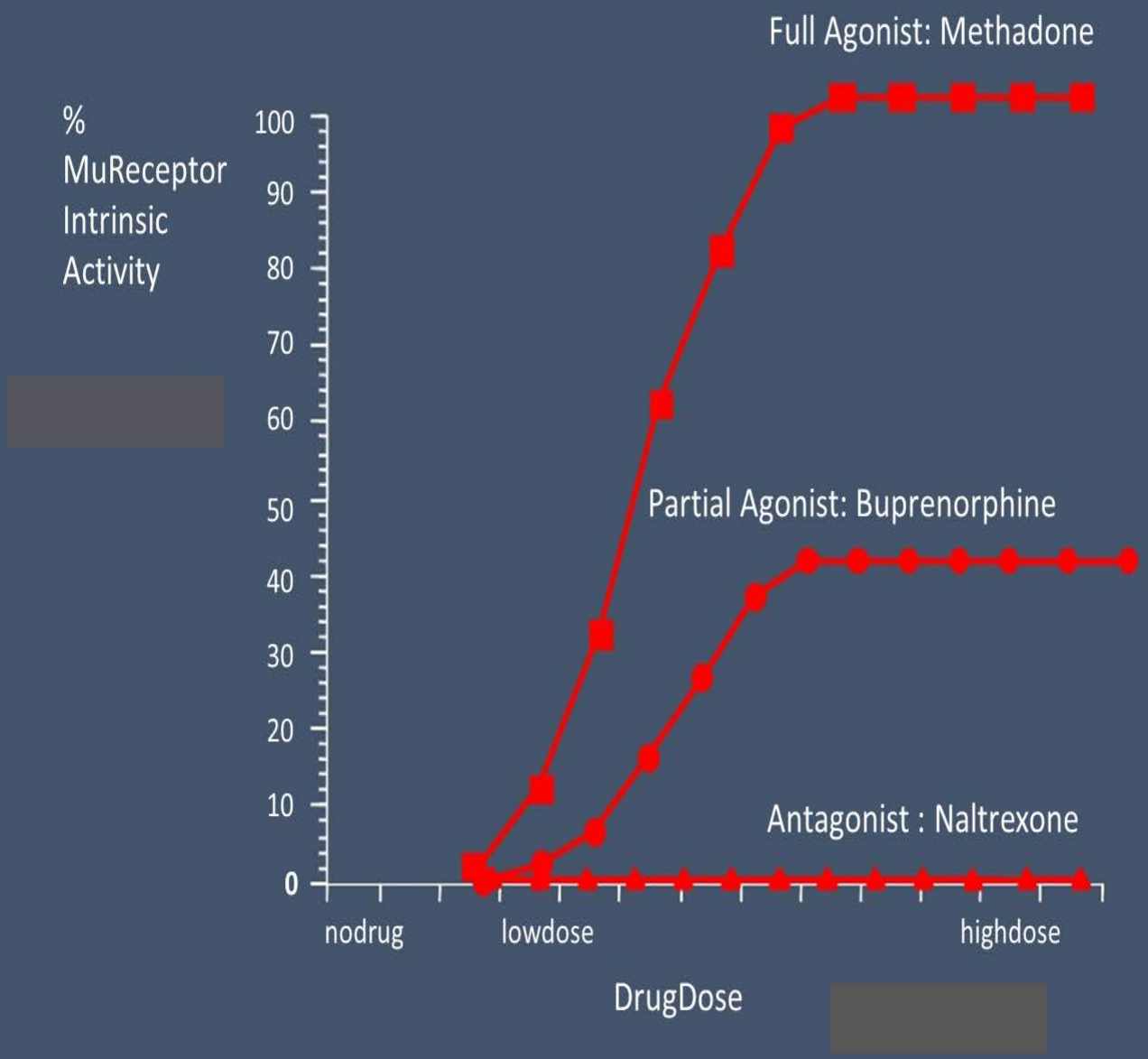
Patient agrees to:

- Keep all regularly scheduled taper monitoring follow-up appointments
- Comply with any consultations requested by the PCP
- Not change the Taper Plan without approval by the PCP
- Engage in the multidisciplinary activities suggested by the PCP
- Notify the PCP of any concerns or factors that occur during the tapering process

A Word About Buprenorphine

- Partial mu receptor agonist
- Partial kappa receptor antagonist
- Analgesia for 4-6 hours – can be dosed BID or TID for improved pain management
- Office based prescribing for OUD with DEA waiver or “X waiver” after completing 8-hour (physicians) or 24-hour (NPs and PAs) training
- Can be prescribed for pain without X waiver
- Combined with naloxone (Suboxone) for the treatment of OUD to prevent IV misuse.

Opioid Activity Levels



Buprenorphine: Pros/Cons

- **Pros**
  - Effective for pain and treatment of opioid use disorder
  - Reduces criminality
  - Increases retention in treatment
  - Low overdose risk
  - Office-based prescribing
  - Minimal drug interactions
    - Except for benzos, alcohol
- **Cons**
  - Training required to prescribe suboxone
  - Cost (covered by EOCCO)
  - Potential for precipitated withdrawal
  - Can be diverted

References

1. **Frank JW, Lovejoy TI, Becker WC, Morasco BJ, Koenig CJ, Hoffecker L, et al.** Patient outcomes in dose reduction or discontinuation of long-term opioid therapy. A systematic review. Ann Intern Med, 2017; 167(3):181-191.
2. **Berna C, Kulich RJ, Rathmell JP.** Tapering long-term opioid therapy in chronic noncancer pain: evidence and recommendations for everyday practice. Mayo Clin Proc. 2015; 90: 828-42.

Resources

- CDC Opioid Prescribing Guidelines:
  https://www.cdc.gov/mmwr/volumes/65/rr/rr6501e1.htm

- Oregon Pain Guidance Group Opioid Prescribing Guidelines:
  https://professional.oregonpainguidance.org/wp-content/uploads/sites/2/2014/04/OPG_Guidelines_2016.pdf

- Oregon Health Authority Resources for Tapering Oregon Health Plan (OHP) Members with Chronic Pain Off Prescription Opioids:
  http://www.oregon.gov/oha/HSD/OHP/tools/Tapering%20off%20prescription%20opioids%20-%20Provider%20and%20patient%20resources.pdf

- Dr. Melissa Weimer's "Practical Tools to Successfully Taper Prescription Opioids:
  http://professional.oregonpainguidance.org/wp-content/uploads/sites/2/2016/10/Opioid_Tapering_Weimer_9.21.pdf

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