Managing Chronic Pain

WHEN AND HOW TO TAPER OR DISCONTINUE OPIOIDS

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Conflict of Interest Disclosure
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Program Title: When and How to Taper or Discontinue Opioids

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- None for this presentation

Mitigating Potential Bias

- Information/recommendations provided will be evidence- and/or guideline-based (where they exist) and opinions of the speaker and off-label uses will be identified as such.
- The Speaker completed the CPFC Mainpro® Declaration of Conflict of Interest form evidencing compliance with Mainpro® requirements

Learning Objectives

After attending this program, participants will be able to:

- Explain reasons for tapering or discontinuing opioid therapy in patients with CNCP
- Describe methods to safely and humanely taper or discontinue opioid therapy in patients with CNCP

Motivational Interviewing to Support Opioid Tapering
Lori Montgomery
Saturday, Nov 12, 2016 13:45pm

200 mg morphine equivalent = "watchful dose"

www.nationalpaincentre.mcmaster.ca/opioid/

Watchful Dose

R10 Recommendation Statement

Chronic non-cancer pain can be managed effectively in most patients with dosages at or below 200 mg/day of morphine or equivalent (Grade A).

Consideration of higher dosage requires careful reassessment of the pain and of risk for misuse, and frequent monitoring with evidence of improved patient outcomes (Grade C).

7

Adapted from: http://nationalpaincentre.mcmaster.ca/opioid/

Morbidity and Mortality Weekly Report (*MMWR*)

CDC > MMWR

CDC Guideline for Prescribing Opioids for Chronic Pain — United States, 2016

Recommendations and Reports / March 18, 2016 / 65(1);1–49

- Try non-pharma and non-opioid pharmacologic therapy first
- Before starting opioids establish realistic goals for pain and function
- In acute pain, prescribe the lowest effective dose of IR opioids for the shortest time possible
- Evaluate benefits and harms within 1 to 4 weeks of starting or of dose escalation.
- Review the patient's history of controlled substance prescriptions.
- Careful if the daily dose is > 50mg MED; don't exceed 90 mg MED
- Avoid prescribing opioids and benzodiazepines concurrently

Debra Houry, MD, Director of the CDC's National Centre for Injury Prevention:

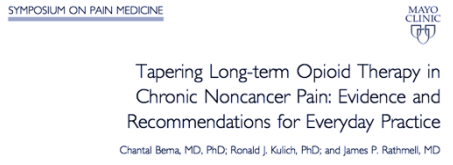
"The Guideline is a set of voluntary recommendations intended to guide primary care providers as they work in consultation with their patients to address chronic pain."

"Specifically, the Guideline includes a recommendation to taper or reduce dosage only when patient harm outweighs patient benefit of opioid therapy. The Guideline is not a rule, regulation, or law. It is not intended to deny access to opioid pain medication as an option for pain management. It is not intended to take away physician discretion and decision-making."

When to Consider Tapering Opioid Therapy

- Patient request
- Pain condition resolved
- Risks outweigh benefits
  - Repeated out of bounds behaviours --? OUD
- Adverse effects outweigh benefits
  - High risk behaviours for overdose
  - ?Opioid hyperalgesia
- Medical complications
- Opioid not effective
  - No improvement in function / QOL
- (Regulatory "suggestion")

…but how do I actually do this?



"…little specific and high-quality research has focused on guiding tapering from long-term opioid treatment and on specific support needed to manage risks and issues in this process. Important questions remain to be studied…"

Mayo Clin Proc. June 2015;90(6):828-842

Case 1: Albert

Opioid Reduction Post-surgery

- In a post-op environment, reducing/stopping opioids is usually easier
  - The source of pain is usually reduced by surgery
  - The duration of treatment is probably short
  - Patient motivation is high and with frequently improved mood due to successful surgery

Albert: Patient Profile

- Male aged 52 years
- Developed low back pain x 3 years
- Non-smoker, uses alcohol socially, no drug use
- Exercises 4 to 5 times per week (hoping to improve pain)
- Prior medical history
  - Attention-deficit disorder
  - Hypertension controlled with trandolapril 4 mg once daily

Albert: Pain History

- Low back pain started 3 years ago after jogging (an unusual activity for him)
- Neurologic symptoms slowly developed in his right leg down to the first toe (numbness, pins and needles, formication, burning sensation)
- Worse when standing for more than a few minutes and when walking – needs to stop and sit
  - Neurogenic claudication for 1 year
- When shopping with a grocery cart and bending over it, feels almost no pain

Albert: Diagnosis

- Right L5 foraminal stenosis with neurogenic claudication

Albert: Non-pharmacological Treatments

- Chiropractic treatment helped initially, but not over the long-term
- Acupuncture: temporary benefit for 24 hours after treatments
- Physiotherapy: not helpful (hurting)
- Tried yoga – unable to participate
- Regular exercise: improved low back pain but ineffective on the neuropathic pain in right leg

Albert: Pharmacological Treatments

- Prior to surgery, pain was treated with:
  - Acetaminophen 650 mg three times daily
  - Naproxen/esomeprazole 500/20 mg twice daily
  - Bupropion XL 300 mg once daily
  - Tapentadol controlled release 50 mg twice daily
  - Tapentadol immediate release 50 mg as needed (1/day)

Albert: Results of Nerve Root Blocks

- Nerve root blocks L4-L5 and L5-S1 right side x 3
  - Improved pain 90% for 3 to 4 weeks
- Testing of right nerve root block to confirm which level was more involved
  - S1: negative
  - L5: positive

Surgical Treatment

- Spine surgeon agreed to operate
- Surgery :
  - L5 decompression (posterior approach)
  - Disc prosthesis L3-L4 (anterior approach)
  - Fusion L5-S1, L4-L5 (anterior approach)

Outcome of Surgery

- Right leg neuropathic pain resolved BUT deep spinal pain in left lumbar area (surgical site) persists – 6-9/10, worse with movement, better with rest
- Post-surgical pain treatment:
  - Hydromorphone 2 mg iv every 4 hours for the first 2 days – he needs 6 doses total per day to be comfortable (12mg iv)
  - Sent home on CR hydromorphone 12 mg twice daily and IR hydromorphone 4 mg QID prn as needed for first 2 weeks
  - Complains of constipation, drowsiness, and low-back pain with some allodynia on the left side
- What next?

Albert: Post-surgical Pain Tx

- Prior to seeing his FD Albert restarted:
  - Acetaminophen 650 mg twice daily
  - Naproxen/esomeprazole 500/20 mg twice daily
- After 2 weeks, physician switched patient from hydromorphone CR and IR to tapentadol
  - Controlled release 50 mg twice daily
  - Immediate release 50 mg twice daily as needed
- Drowsiness improved, no improvement in constipation

Treating Post-Surgical Pain (2)

- 2 months post-surgery, pain is improving (0-4/10) but Albert is still taking all of the previous medications

What would you recommend? Which medication would you discontinue first? How would you do it?

Discontinuing Opioids Post Op

- Advise patient about potential withdrawal symptoms
- The pharmacist can help with interval dispensing
- Choose one of his opioids and decrease 10% every 2-7 days (longer if having difficulties)
- Follow up weekly (office visit or by phone)

- Albert saw his pharmacist and made the decision to stop tapentadol abruptly because of drowsiness
  - Mild withdrawal symptoms: dizziness, palpitations, and chills lasting 2 days, flare up of pain → better after 2 weeks

Three Months Post-surgery

- Albert is still taking acetaminophen 650 mg twice daily and naproxen/esomeprazole 500/20 mg twice daily
- Pain is 0-2/10

What would you recommend?

What if…

- **What if** pain was still 6-7/10 five months after surgery and his function is still limited?

- **What if** surgery failed and right leg pain was worse?

Pain After "Failed" Surgery

- Re-evaluate the patient – surgical re-assessment
- Assess biological/psychological/social factors
  - Physical exam
  - Investigations
- Implement a multimodal approach:
  - Physical – physio / chiro / massage
  - Psychological – CBT, Mindfulness, CPSMP
  - Interventional – TrPt injections, nerve blocks
  - Pharmacological – NSAIDs, TCAs, SNRIs, Opioids

Case 2: Serge

Serge: Patient Profile

- Male aged 38 years
- Chronic low back pain that failed to respond to previous discectomy and fusion
- Current medications:
  - CR oxycodone 80 mg three times daily
  - Oxycodone-acetaminophen, 8 tablets daily as needed
    - He usually takes all 8 tablets and some extras "occasionally"
- Wakes in the morning with severe pain
- Spends most of the day resting, watching TV:
  - "I'm in too much pain to do anything else"
  - "I am afraid of reinjuring my back"
- Significantly depressed mood
- Requests an increase in opioid dose

Serge: Chart Review

- His opioid dose has increased significantly over the past 2 years
- In spite of this, he has come in for early refills a number of times
- His Opioid Risk Tool assessment 3 years ago put him in the moderate risk category
- Urine drug tests recently have been positive for cannabis ("medical") and cotinine (smokes 1 PPD)
- He ran out of meds early recently and came in smelling of alcohol ("helps the pain, doc")

Serge: Current Status

- Despite opioids, no increase in functionality
- Pain is worse (8-10/10), mood has worsened
- BPI-I score is 62/70
- Current opioid dose is 240 mg + 40 mg = 280 mg oxycodone ~ 420mg ME
- Spouse is complaining that he is very irritable lately and is not participating in family activities
- Serge is complaining that his whole body hurts

Tolerance? Hyperalgesia? SUD?

BPI-I, Brief Pain Inventory-Interference.

Opioid-induced Hyperalgesia

- In some patients, opioids activate an endogenous "anti-opioid" system involving CCK, dynorphin A, spinal NK1 receptors, and TLR4 on glial cells
- This can manifest clinically as tolerance (loss of opioid analgesic effect)
  - May also manifest as inter-dose, withdrawal-mediated pain
- Increasing opioid dose will temporarily restore pain relief but loss of analgesic effect will recur

Ossipov MH, et al. *Biopolymers*. 2005;80(2-3):319-24.
Chang G, et al. *Med Clin North Am*. 2007;91(2):199-211.
Lee M, et al. Pain Physician 2011; 14:145-161

CCK, cholecystokinin.

Opioid Hyperalgesia vs. Tolerance?

- Can be a difficult call
- Pain characteristics change / more generalized
- May develop hyperalgesia +/- allodynia
- Opioid-induced hyperalgesia, may have associated features of neuroexcitation:
  - Agitation
  - Multifocal myoclonic jerks
  - Seizures
  - Delirium

Ossipov MH, et al. *Biopolymers*. 2005;80(2-3):319-24.
Chang G, et al. *Med Clin North Am*. 2007;91(2):199-211.
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Glial Cells and Opioids

- Glia disrupt the clinical efficacy of opioids
  - affect efficacy, tolerance, dependence, reward and withdrawal
- When you take opioids you suppress pain but you also activate glial cells that are pain enhancing - so the "net" analgesic effect is the balance between these two effects

Grace PM, Mair FM, Watkins LR. Headache 2015;55:475-489)

Glial Cells and Opioids

- Opioid isomers differ dramatically in clinical actions
- (-)isomers bind to the neuronal opioid receptor the (+) isomer does not
- Both (+) and (-) isomers can activate glial cells
- The (+)isomers of naltrexone and naloxone block the glial effects but doesn't bind to the neuronal opioid receptor → can potentiate morphine analgesia

Grace PM, Mair FM, Watkins LR. Headache 2015;55:475-489)

"Centralization" Continuum

Peripheral — Centralized

Acute pain
Cancer pain
Osteoarthritis
RA
Low back pain
Ehler's Danlos
SC disease
Fibromyalgia
Tension HA
TMJD
IBS

Clauw 2016

Clues to Central Sensitization

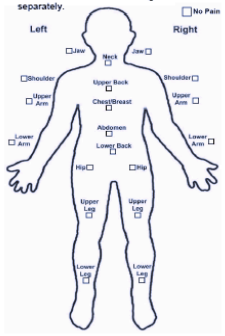
	Description
Patient history	Reports of pain that spread beyond the initial area of injury
Primary/secondary brush allodynia	Painful response to lightly brushing the skin inside the initial area of injury (primary) or outside of the area of injury (secondary)
Temporal summation with wind up	Repeated painful stimuli, like a pinprick (usually tested as 1 per second for 10 seconds) results in an augmented pain response so that following repetitive pinpricks the intensity of the pain rating at the end is graded much higher than a single stimulus
After pain	Describes the sensation when, after the pinprick is removed, patients continue to feel as if the pin is still in their skin

Latremoliere and Woolfe. J Pain. 2009;10(9)895-926.

"Fibromyalgia-ness" can be scored

Fibromyalgia Symptoms (Modified ACR 2010 Fibromyalgia Diagnostic Criteria)

1. Please indicate below if you have had pain or tenderness over the past 7 days in each of the areas listed below. Check the boxes in the diagram below for each area in which you have had pain or tenderness. Be sure to mark right and left sides separately.



2. Using the following scale, indicate for each item your severity over the past week by checking the appropriate box.
   No problem
   Slight or mild problems: generally mild or intermittent
   Moderate: considerable problems; often present and/or at a moderate level
   Severe: continuous, life-disturbing problems

	No problem	Slight or mild	Moderate	Severe
a. Fatigue	☐	☐	☐	☐
b. Trouble thinking or remembering	☐	☐	☐	☐
c. Waking up tired (unrefreshed)	☐	☐	☐	☐

3. During the past 6 months have you had any of the following symptoms?

	No	Yes
a. Pain or cramps in lower abdomen	☐	☐
b. Depression	☐	☐
c. Headache	☐	☐

4. Have the symptoms in questions 2-3 and pain been present at a similar level for at least 3 months? No ☐ Yes ☐

5. Do you have a disorder that would otherwise explain the pain? No ☐ Yes ☐

1. Wolfe et. al. *Arthritis Rheum.* Jun 15 2009;61(6):715-716 2. Wolfe et. al. *J Rheumatol.* Feb 1 2011. 3. Clauw DJ. JAMA, 2014.

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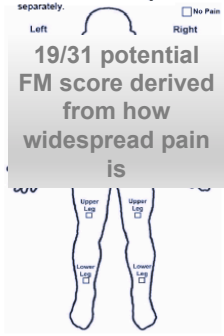

19/31 potential FM score derived from how widespread pain is

2. Using the following scale, indicate for each item your severity over the past week by checking the appropriate box.
   No problem
   Slight or mild problems: generally mild or intermittent
   Moderate: considerable problems; often present and/or at a moderate level
   Severe: continuous, life-disturbing problems

12/31 potential FM score derived from co-morbid CNS-derived symptoms that accompany CNS pain

4. Have the symptoms in questions 2-3 and pain been present at a similar level for at least 3 months? No ☐ Yes ☐

5. Do you have a disorder that would otherwise explain the pain? No ☐ Yes ☐

1. Wolfe et. al. *Arthritis Rheum.* Jun 15 2009;61(6):715-716 2. Wolfe et. al. *J Rheumatol.* Feb 1 2011. 3. Clauw DJ. JAMA, 2014.

Benefit to Harm Framework

Judge the treatment, not the patient
"I care about you…
…maximize benefit, minimize harm"

Don't abandon your patient simply because of opioid-related behaviours – but you can abandon a treatment that is no longer helping

Risks of Opioid Withdrawal

Careful: pregnancy, fragile medical or psychiatric condition
severe SUD / diversion & duration of a taper
risk of relapse → loss of tolerance → overdose

CASE REPORT

"Broken Heart Syndrome" After Separation (From OxyContin)

Juanita M. Rivera, MD; Adam J. Locketz, MD; Kevin D. Fritz, CNP; Terese T. Horlocker, MD; David G. Lewallen, MD; Abhiram Prasad, MD; John F. Bresnahan, MD; and Michelle O. Kinney, MD

Mayo Clin Proc. 2006;81(6):825-828

Tapering Opioid Therapy

- Discuss and document (with significant other?):
  - Withdrawal is rarely dangerous
  - Typical withdrawal symptoms and time course (? hand-out)
- Discuss an alternative treatment plan
- Careful with sedatives – withdrawal is more risky and has to be more gradual

Patients who are diverting or addicted may refuse to comply and leave your practice

Tapering Opioid Therapy

- Fast or slow
  - 10% every 1-2 days, daily pharmacy dispensing OR
  - 10% per 1-2 weeks, weekly dispensing (blister pack)
  - When down to 30% of original dose – slow down the taper to 5% every 1-2 weeks
  - Can take months (or years!) in some people
- Use pharmacological aids for withdrawal symptoms
  - Clonidine, loperamide, NSAIDs, GPN/PGN, nabilone
- Methadone (buprenorphine) taper
  - Know info about your local methadone (buprenorphine) clinic
- Talking to the patient is the most effective treatment!

NSAID, non-steroidal anti-inflammatory drug.

Serge: - Discussion

- You have a good discussion with Serge and his wife and explain why, in your opinion, the opioid therapy is no longer working very well (risk vs benefit)
- Explain hyperalgesia / withdrawal-mediated pain
- You explain a trial of gradual tapering of his dose to see what happens to his symptoms
- You explain the possible withdrawal symptoms and strategies for managing

Serge: Taper

- You reduce Serge's opioid dose by ~10% every 2 weeks, with part fills every 2 weeks in blister packs
- You prescribe pregabalin, clonidine, and nabilone to help him manage withdrawal symptoms
- At 40 mg CR-oxycodone q8h plus 6 acetaminophen-oxycodone per day, he complains of great difficulty coping with withdrawal symptoms and a severe increase in pain
- He now tells you that he is also getting severe pain from his right ankle which he broke 10 years ago ???

WISP Syndrome

WITHDRAWAL-ASSOCIATED INJURY SITE PAIN (WISP): A DESCRIPTIVE CASE SERIES OF AN OPIOID CESSATION PHENOMENON

Launette Marie Rieb, MD, MSc[1,2]

OPEN

PAIN Publish Ahead of Print
DOI: 10.1097/j.pain.0000000000000710

A previously healed painful injury begins to hurt again during the course of opioid withdrawal
Typically lasts about 2 weeks

For Consideration

- What would you do now for Serge?
  - A. Leave well enough alone – he is at the watchful dose
  - B. Pause the taper, but continue again in 1 month
  - C. Continue the taper in spite of his complaints
  - D. Switch to Bup/Nx and stabilize, and then taper off slowly
  - E. Keep him on a stabile dose of Bup/Nx and reassess in the future
  - F. Other options?

3-day Switch to Bup/Nx and Taper

- Responsible other adult – that you meet in person, no benzos
- Explain the loading protocol – written materials
- Stop the Rx opioid at midnight
- On Day 1 wait until at least moderate to severe withdrawal
  - COWS > 14-20
- Take Bup/Nx 4mg s.l. and wait 3 hours
- Take Bup/Nx 2mg s.l. q 3h prn up to 12mg Day 1
- On Day 2 – take the total dose of Bup/Nx required on Day 1 and load again if required by 2mg q 3h up to max 24mg daily
- On Day 3 – take the total dose of Suboxone from Day 2 and split the total dose BID
- F/U with MD on Day 4 → stabilize then taper ~2 mg weekly

Lee JD. J Gen Intern Med 2009; 24(2):226–32
Lee JD et al J Addict Med 2014; 8(5):299-308

Tapering Off of Bup/Nx

- Taper by ~2mg q 1-4 weeks (or faster if motivated)
- When you get to 2mg, pt. can break the pill in ½ or take q 2 days
- If difficult to stop Bup/Nx completely then:
- Leave them at the dose they stabilize on for a negotiated number of weeks then try again

OR

- Switch to 20ug/hr Bup patch x 1 week
  - then 15ug/hr x 1 week
  - then 10ug/hr x 1 week
  - then 5 ug/hr x 1 week then D/C

For Consideration

- **What if:**
  - Serge screened positive for cocaine on his next two urine drug tests?
  - Serge started using street sources of opioids and other drugs?
  - Serge voluntarily attended an addiction program for an assessment?

Case 3: Renee

Patient Profile: Renee

- Female aged 55 years
- Bilateral knee pain with moderate osteoarthritic changes
- Orthopedic review – "conservative therapy"
- Obesity; onset 6 years ago after her daughter's suicide
  - Current BMI 31 kg/m^2
- Chronic anxiety and mild to moderate depression
- On disability for 1 year following a difficult cholecystectomy complicated by several episodes of *Clostridium difficile*

BMI, body mass index.

Current Treatments: Renee

- Seeing a bariatric physician
  - With an appropriate weight loss strategy, has lost 30 pounds in the last 6 months
- Escitalopram 30 mg once daily
- Clonazepam 1 mg twice daily for anxiety
- Zopiclone 7.5 mg at bedtime for insomnia
- CR hydromorphone 24 mg three times daily
- IR-Oxycodone 20 mg three times daily as needed for breakthrough pain (but takes it regularly)

Renee's Visit Today

- In to see you because IR-OC not helping anymore
- Tried 40 mg dose and found it more effective
- Requesting increased dose of oxycodone "so she can walk more"

What is the morphine equivalent of Renee's current opioid use?

How would you handle this request?

HM 24mg x 3 = 72mg x 5 = 360mg ME
OC 20mg x 3 – 60mg x 1.5 = 90mg ME
Total = 450mg ME

Handling Renee's Request

- The Canadian Opioid Guideline advises re-evaluating opioids when ME dose is >200 mg a day
- You agree to reassess her current situation and ask that she complete some evaluations and book a follow-up counselling visit to review the results

Follow-up Evaluation: Renee

- Knee pain: Standing radiographs of both knees and physical examination
- Assess pain and functionality: Brief Pain Inventory
- Assess mood: GAD-7, PHQ-9, HADs (or other mood evaluations)
- Assess for opioid side effects:
  - Screen for sleep apnea: sleep diary and overnight oximetry
  - Hormonal effects: order appropriate lab tests +/- bone density
  - Inter-dose withdrawal: by history
  - Sedation: Epworth Sleepiness Scale
  - Cognitive impairment: by history
- Addiction, misuse, abuse, diversion: urine drug test, list of aberrant behaviours in past, physical examination
- Assess for coping strategies

GAD-7, Generalized Anxiety Disorder 7-item scale. PHQ-9, Patient Health Questionnaire 9-item scale, HADs, Hospital Anxiety Depression Scale.

Follow-up Evaluation: Renee

- Physical examination:
  - Both knees stable, no significant bony enlargement
  - Pain-free hip range of motion
  - Evidence of muscle tenderness with trigger points in vastus medialis and vastus lateralis
  - Quadriceps weakness
  - Patellofemoral pain with patellar compression and quads activation
  - No abnormal sensitivity to light touch
- X-rays: mild to moderate OA – no change from prev

Follow-up Evaluation: Renee

- Average pain score is 8/10, increasing to 10/10 with prolonged walking, generally proportional to activity
- Brief Pain Inventory score: 68/70 – indicating severe interference with daily life activities
- Mood stable: PHQ-9 score is 9 (mild depression), GAD-7 score is 15 (moderate anxiety)
- Sleep apnea screening: initial insomnia (anxious thoughts) and severe sleep apnea

GAD-7, Generalized Anxiety Disorder 7-item scale. PHQ-9, Patient Health Questionnaire 9-item scale.
TSH, thyroid-stimulating hormone. UDT, urine drug test.

Coping Strategies: What to Ask About

1. Does the patient have a “pain team” and a pain plan?
   - Renee thinks this is you and your prescribing of medication
2. Pacing
   - Renee does pace her activities, but spends most of her day resting at home; she can complete her own activities of daily living but requires help to get groceries
3. Prioritizing
   - Renee hadn’t thought about this
4. Goals
   - Renee’s sees that more oxycodone is the only way to achieve functional improvement and her goal of additional weight loss

Coping Strategies: What to Ask About (2)

5. Plan to manage a pain flare
   - Take more oxycodone
6. Relaxation skills
   - Used to walk for relaxation but can't due to pain, admits she doesn't cope as well with pain when anxiety is bad (and this cues her to use oxycodone)
7. Keeping a diary of progress, recording positive changes
   - Renee couldn't think of anything to write down
8. Pain self-management program
   - Renee has never attended one

Chronic Pain & Suffering Is Like a Layer Cake

Psychosocial stress: Moderate – still grieving
Mood: Moderate anxiety, mild depression
Sleep: Impaired by anxiety, pain, and sleep apnea
Pain: Mild-moderate OA, myofascial pain, deconditioning
What the pain means: Loss of independence
Pain bothers her a lot – on her mind all day
Abnormal pain processing: None
Genetic factors: ?

Is pain the primary cause of Renee's suffering?

OA, osteoarthritis.

Renee: Summary

- There is little evidence that opioids are still helping Renee, based on high pain scores and BPI (her assessment, not yours) – BUT she has recently tried increasing the dose and found it helpful
- She has developed significant opioid tolerance but no symptoms/signs of OIH
- She has severe sleep apnea and is using both opioids and benzodiazepines

BPI, Brief Pain Inventory.

The Plan for Renee

1. Discuss risks of combining opioids and benzodiazepines, especially given severe sleep apnea
2. Give her the option to choose which to taper first, the benzodiazepines or opioids
   - Renee reluctantly agrees to try tapering the opioid first
3. Reassure her that the plan will be a very gradual withdrawal
4. Discuss typical withdrawal symptoms and how to manage

Options for Reducing Opioids: Renee

Option 1

- Stay on CR HM 24 mg q 8h
- Gradually reduce IR OC first, then start reducing CR HM
  - Reduce oxycodone 20 mg three times daily by 10 mg every 2 weeks

Option 2

- Convert IR opioid to same medication as CR, then gradually reduce
  - 60 mg OC ~ 18 mg HM + (24 mg x 3) = 72 + 18 = 90
  - Total HM = 90 mg ÷ 3 = 30 mg q8h
    - Start by reducing ~10 mg every 2 weeks: 27 mg / 27 mg / 27 mg X 2 weeks, then 24 mg – 24 mg – 24 mg x 2 weeks …

LA, long acting. SA, short acting.

The Plan for Renee (2)

- The goal is to find the lowest effective dose of opioids
  - No opioids, less opioids, or intermittent opioids
  - Offer alternative strategies for reducing pain AND increasing coping (CBT, Mindfulness, CPSMP)
  - Targeted exercise to strengthen quadriceps
  - Trigger point injections, intra-articular injections
  - Refer for assessment re: Tx of sleep apnea

Bi-PAP, Biphasic Positive Airway Pressure. CPAP, Continuous Positive Airway Pressure.

The Plan for Renee (3)

- Once opioids are rationalized, work on the benzodiazepines
  - Use nabilone and/or GPN or PGN during taper
  - Resource: *The Ashton Manual*, a book otherwise known as "Benzodiazepines: How They Work and How to Withdraw":
    - Official website with content from the book: http://www.benzo.org.uk/manual/
    - PDF: http://lonelylinks.com/ashton.htm
    - e-book: http://www.theashtonmanual.com/order.html
    - Order online: http://www.benzobookreview.com/ashton.html

Bi-PAP, Biphasic Positive Airway Pressure. CPAP, Continuous Positive Airway Pressure.

Plan: Tips for Success

- Predict (100% guaranteed) pain will be worse the first week after reducing dose (hyperalgesia) but should stabilize to baseline by the end of the second week
- Reduce slowly: 5-10% every 1- 2 weeks
- Interval dispensing q 1-2 weeks (?blister packs)
  - Helps keep people on schedule
- Manage side effects of withdrawal
- See the patient regularly to review status and discuss other strategies for pain flares
- Do what you do for the good of the patient

References

- Best advice for people taking opioid medications. Dr Mike Evans
  - https://www.youtube.com/watch?v=7Na2m7lx-hU&feature=youtu.be
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  Opioid Manager tool from Canadian CNCP guideline group:
  http://nationalpaincentre.mcmaster.ca/opioidmanager/
- CDC Guideline for Prescribing Opioids for Chronic Pain
  www.cdc.gov/drugoverdose/prescribing/guideline.html
- Washington State Opioid Taper Plan Calculator
  www.agencymeddirectors.wa.gov/Files/2015AMDGOpioidGuideline.pdf
- Tapering Long-Term Opioid Therapy in Chronic Noncancer Pain
  www.mayoclinicproceedings.org/article/S0025-6196(15)00303-1/fulltext

I will put this presentation and some supplementary info on the FMF Handout area

Questions?

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Managing Opioid Withdrawal – Information for Patients

Dr. Pam Squire & Dr. Roman Jovey

Most opioids provide **good pain relief at lower doses**. Unfortunately, it also seems like most people will experience some degree of tolerance if the opioids are taken regularly over time. This means that you need a higher dose of the opioid to achieve the same pain relief. This does not necessarily mean that you are addicted (although sometimes that is the case). Almost 100% of people who take opioids regularly for more than a few weeks will develop withdrawal symptoms when they stop them. If the drug you are using is alcohol, then withdrawal is a one sign of addiction. However, when you are taking a prescribed medication, such as an opioid, as directed, then withdrawal is not necessarily a sign of addiction. We are now learning that high dose **opioids may not provide good pain relief over the long term** in all patients. Many patients still report pain levels over 7/10, a sign their pain is not being well controlled by the opioid. Watch the YouTube video by Dr. Micheal Evans to learn more: https://youtu.be/7Na2m7lx-hU

In a person with chronic pain, one of the very **first symptoms of opioid withdrawal is increased pain**. It can be the same pain you are being treated for as well as total body joint and muscle pains. This can be confusing. Many people have experimented with their opioid to see if they still need it by delaying or missing a dose or taking less. In almost every case, this will cause some degree of withdrawal and the first symptom you will feel is increased pain. Taking additional opioid will relieve the pain quickly because it relieves the withdrawal. Since the opioid was not reduced enough to cause other withdrawal symptoms, **people misinterpret this fast pain relief as proof that the opioid is still working**. They often describe this as "taking the edge off" and so they believe that they will be much worse off without the opioid.

OPIOID SIDE EFFECTS

Opioids do have some **long-term side effects**. High doses can cause reduced hormone levels, particularly testosterone in men, and estrogen and progesterone in women. It appears this can increase the risk of osteoporosis and increase the risk of bone fractures in both sexes. In men, low testosterone can also lead to low sex drive, low energy, depressed mood, and can impair muscle repair. Opioids can make sleep apnea worse, resulting in poor sleep and daytime fatigue. Many people comment that they had no idea how much the opioids were affecting them until they reduced their dosage or stopped them. When the opioids are no longer providing good pain relief, most people feel much better without them.

GO SLOW

It can be scary to think of reducing or stopping your opioids. One way to test this out is to try the following: If you are taking both short-acting and long-acting opioids, ask your doctor to switch all of the short-acting opioids to long-acting opioids. Then **reduce your total daily dose of opioid by 10% for two weeks**. In the first week, you will experience increased pain as well as the other withdrawal symptoms. If the increased pain was mainly due to withdrawal, during the second week your pain should reduce back down to where it was before you started reducing the opioid. Some people are extremely sensitive to withdrawal symptoms and experience more severe symptoms than others. In this case, **try reducing by only 5% instead**. Try your best to avoid taking extra opioids to manage your withdrawal. It may help in the short term but it just delays and prolongs your withdrawal. It is best to plan ahead on not feeling great for the duration of withdrawal. Trouble sleeping and anxiety are both part of withdrawal and will also get better over time.

Opioid withdrawal symptoms are unpleasant but very rarely life threatening. The exceptions to this could be someone with another serious medical condition, such as poorly controlled angina or poorly controlled high blood pressure, or someone with a severe psychiatric condition where the risk of self-harm is high. In such cases, you should seek medical supervision when stopping your opioid medication through your own family doctor or, if necessary, at the Emergency Department of your local hospital. (also see the award-winning blog, Guinevere Gets Sober, for extra advice.)

You may experience any or all of the following **symptoms** during withdrawal:

- sweats
- chills
- headaches
- muscle aches
- joint aches
- insomnia
- abdominal cramps
- nausea
- vomiting
- diarrhea
- anxiety
- fatigue
- malaise
- "goose flesh"

These symptoms are similar to a severe flu-like illness. They usually begin within 12-36 hours of reducing the dose of your opioid medication, are most severe for the next 24-72 hours, and usually begin to fade away over the next 3-7 days. Some people report feeling tired and mildly unwell for 1-2 weeks after completely stopping opioids. Occasionally this feeling can last several weeks.

THREE METHODS FOR STOPPING OPIOIDS

1. **Fast** – You can simply stop taking your opioids immediately. This will mean that your withdrawal symptoms may be more severe, but the worst will be over in 7-10 days. If you have taken opioids for many months, it is NOT recommended that you do this on your own. If you really want to do it this way, try to check into a Detox centre where you can get medical help. Hospitals will not allow admissions for detox. If you are determined to stop opioids quickly and cannot get into a Detox centre, and you have a doctor willing to work with you, you could gradually taper the amount you take by 5-10% every day. This would mean that you are off of opioids in 10-20 days. Your withdrawal symptoms will be milder but will last a longer time (2-4 weeks). In this case, the doctor may choose to write a prescription instructing the pharmacist to dispense only a limited amount of medication at a time. Also, he/she may substitute a long-acting, once-daily opioid, such as Kadian, which can be taken once daily. Another medication called Suboxone can also help you stop opioids quickly but must be prescribed by a physician who is knowledgeable about prescribing this medication.
2. **Slower** – Convert all of your opioid into long-acting opioid (it is really hard to come off short-acting opioids slowly) and then have your physician reduce the dosage by 5-10% every two weeks. The doctor can usually write a prescription for a month or two at a time and you can simply pick up the new dosage from the pharmacy every two weeks. A pharmacist can assist in figuring out the exact dosage reductions.
3. **Methadone taper** – This method is the gentlest way to come off of opioids as it can be dispensed in a liquid form, which means it can be reduced by very small amounts at a time. It requires a physician to have a methadone prescribing exemption either for pain or addiction. It is not harder to come off methadone, as Dr. Google may suggest. In our experience (in many, many patients), using methadone to taper is easier and well tolerated.

MEDICATIONS FOR DECREASING WITHDRAWAL SYMPTOMS

There are some **medications you can take to decrease opioid withdrawal symptoms** but no medication, other than an opioid, will take withdrawal symptoms away completely. Please do not use alcohol to manage your withdrawal symptoms. Benzodiazepine medications can be helpful for anxiety and sleep, but they will also cause withdrawal symptoms if they are taken regularly for more than a couple of weeks. This will require another gradual withdrawal to discontinue them. It is harder to stop benzodiazepines than opioids. We suggest that your doctor try nabilone, gabapentin or pregabalin instead.

1. **Nabilone** is a pharmaceutical cannabinoid medication that can be used for **pain**, nausea, vomiting, insomnia, and anxiety. It is safe to use in combination with opioids. If you are not currently using marijuana, the starting dose is 0.25 mg, usually taken at night to start with; it then may be used up to three times a day. The maximum suggested dose is 1 mg up to four times a day. It should not be used if you have a history of psychosis or a history of paranoia with marijuana. It can make you feel high if you take too much, so start low and increase slowly. People do not get dependent on this medication so it can be stopped suddenly and it does not affect breathing which makes it very safe to use with opioids, even in people who have sleep apnea.
2. **Clonidine** is an older blood pressure medication, which can help to decrease some of the anxiety, jitters, sweats, and chills associated with opioid withdrawal. The most important side effect of clonidine is light-headedness when getting up suddenly from bed or a chair. Clonidine comes in a 0.1 mg tablet. Start by taking half of one to see how well you tolerate the drug. Then take one or two tablets every 4-6 hours as required. Do not exceed 6 tablets per day without speaking to your doctor. When stopping clonidine, taper the dose off over 3 days to decrease the risk of a temporary blood pressure increase.
3. Muscle and joint aches can be treated with **acetaminophen** or over-the-counter **NSAIDs**, such as ibuprofen or naproxen (i.e., Advil, Aleve).
4. If diarrhea and stomach cramps become severe, use **loperamide,** available over the counter at your pharmacy.
5. Finally, for severe anxiety and insomnia, the doctor may prescribe **nabilone, gabapentin, or pregabalin** during the taper and for 1-2 weeks after stopping your opioid medication. These medications also need to be stopped gradually if taken regularly for several weeks but they are relatively easy to stop.

Clinical Opiate Withdrawal Scale

Introduction

The Clinical Opiate Withdrawal Scale (COWS) is an 11-item scale designed to be administered by a clinician. This tool can be used in both inpatient and outpatient settings to reproducibly rate common signs and symptoms of opiate withdrawal and monitor these symptoms over time. The summed score for the complete scale can be used to help clinicians determine the stage or severity of opiate withdrawal and assess the level of physical dependence on opioids. Practitioners sometimes express concern about the objectivity of the items in the COWS; however, the symptoms of opioid withdrawal have been likened to a severe influenza infection (e.g., nausea, vomiting, sweating, joint aches, agitation, tremor), and patients should not exceed the lowest score in most categories without exhibiting some observable sign or symptom of withdrawal.

APPENDIX 1
Clinical Opiate Withdrawal Scale

For each item, circle the number that best describes the patient's signs or symptom. Rate on just the apparent relationship to opiate withdrawal. For example, if heart rate is increased because the patient was jogging just prior to assessment, the increase pulse rate would not add to the score.

Patient's Name:_____ Date and Time ____/____/____:_____

Reason for this assessment:_____

Resting Pulse Rate: _____beats/minute *Measured after patient is sitting or lying for one minute* 0 pulse rate 80 or below 1 pulse rate 81-100 2 pulse rate 101-120 4 pulse rate greater than 120	**GI Upset**: *over last* 1/2 *hour* 0 no GI symptoms 1 stomach cramps 2 nausea or loose stool 3 vomiting or diarrhea 5 multiple episodes of diarrhea or vomiting
Sweating: *over past* 1/2 *hour not accounted for by room temperature or patient activity.* 0 no report of chills or flushing 1 subjective report of chills or flushing 2 flushed or observable moistness on face 3 beads of sweat on brow or face 4 sweat streaming off face	**Tremor** *observation of outstretched hands* 0 no tremor 1 tremor can be felt, but not observed 2 slight tremor observable 4 gross tremor or muscle twitching
Restlessness *Observation during assessment* 0 able to sit still 1 reports difficulty sitting still, but is able to do so 3 frequent shifting or extraneous movements of legs/arms 5 unable to sit still for more than a few seconds	**Yawning** *Observation during assessment* 0 no yawning 1 yawning once or twice during assessment 2 yawning three or more times during assessment 4 yawning several times/minute
Pupil size 0 pupils pinned or normal size for room light 1 pupils possibly larger than normal for room light 2 pupils moderately dilated 5 pupils so dilated that only the rim of the iris is visible	**Anxiety or Irritability** 0 none 1 patient reports increasing irritability or anxiousness 2 patient obviously irritable or anxious 4 patient so irritable or anxious that participation in the assessment is difficult
Bone or Joint aches *If patient was having pain previously, only the additional component attributed to opiates withdrawal is scored* 0 not present 1 mild diffuse discomfort 2 patient reports severe diffuse aching of joints/muscles 4 patient is rubbing joints or muscles and is unable to sit still because of discomfort	**Gooseflesh skin** 0 skin is smooth 3 piloerrection of skin can be felt or hairs standing up on arms 5 prominent piloerrection
Runny nose or tearing *Not accounted for by cold symptoms or allergies* 0 not present 1 nasal stuffiness or unusually moist eyes 2 nose running or tearing 4 nose constantly running or tears streaming down cheeks	Total Score _____ The total score is the sum of all 11 items Initials of person completing assessment: _____

Score: 5-12 = mild; 13-24 = moderate; 25-36 = moderately severe; more than 36 = severe withdrawal

This version may be copied and used clinically.

Source: Wesson, D. R., & Ling, W. (2003). The Clinical Opiate Withdrawal Scale (COWS). *J Psychoactive Drugs,* 35(2), 253–9.

Managing Opioid Withdrawal – Information for Clinicians

Roman D. Jovey, MD and Pam Squire, MD

1. Reassure the patient that withdrawal from opioids is **uncomfortable but not life threatening.** Each dosage reduction may result in symptoms similar to a severe, flu-like illness beginning within 12-36 hours and, peaking at 48-72 hours, and then tapering off after 1 week. Some people experience a period of vague dysphoria for 1-2 weeks after withdrawal. (Methadone withdrawal may peak later with less intensity but can go on for 4-6 weeks in some people.)

2. The patient can choose to withdraw abruptly and experience a more severe but shorter overall period of symptoms, or to taper over 10 to 14 days and experience a milder but more prolonged withdrawal. Simply provide a 10% reduction daily over 10 days. Use frequent (even daily) pharmacy dispensing for the tapering process in high-risk patients. Once-daily opioid formulations (i.e., Kadian) may make the withdrawal process simpler. A methadone taper allows for a less intense but longer period of withdrawal symptoms. This requires a methadone prescribing authorization. Suboxone is another option and is the best solution for a rapid opioid taper. Patients are usually comfortable during the taper but experience withdrawal after the last dose. This is available through some physicians who have methadone for addiction licenses and is also offered in some private detox clinics.

3. Clonidine has been used the longest to decrease some of the autonomic symptoms of opioid withdrawal. The main side effects are orthostatic hypotension and sedation.

> *Prescribe 0.1-0.2 mg po q6h prn maximum 6 tabs per day. The dose may have to be lowered if the patient reports orthostatic symptoms or has a BP less than 90/60 mmHg, 1 hour after a dose. Continue clonidine until off of opioids for 3-5 days, then taper over next 3-5 days.*

4. One of the early symptoms of opioid withdrawal is pain – the patient's usual pain plus additional arthralgias and myalgias – which may persist longer than other withdrawal symptoms, but will eventually settle. Acetaminophen, NSAIDs, or tramadol may be helpful. If attempting to re-evaluate a patient's pain off of opioids, the opioids need to be discontinued for at least 3-4 weeks to get through withdrawal pain and to allow opioid receptors to "reset." It can take longer for an individual's natural opioids to begin production.

5. Loperamide, which can be purchased OTC at the pharmacy, can help decrease abdominal cramping and diarrhea if these occur.

6. Acupuncture or TENS have been shown in some studies to decrease symptoms of opioid withdrawal.

7. Short-term use of an antiepileptic such as carbamazepine, gabapentin, or pregabalin, or the cannabinoid nabilone for the first 1-2 weeks may help with sleep and anxiety.

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Ashburn MA, Lipman AG, Carr D, Rubingh C. *Principles of Analgesic Use in the Treatment of Acute Pain and Cancer Pain* (5th Edition). Chicago, IL: American Pain Society, 2003.

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July 2014

Buprenorphine - Beginning Treatment

Day One: Before taking a buprenorphine tablet you want to feel lousy from your withdrawal symptoms. Very lousy. It should be at least 12 hours since you used heroin or pain pills (oxycontin, vicodin, etc.) and at least 24 hours since you used methadone.

Wait it out as long as you can. The worse you feel when you begin the medication, the better it will make you feel and the more satisfied you will be with the whole experience.

You should have a least 3 of the following feelings:

- twitching, tremors or shaking
- joint and bone aches
- bad chills or sweating
- anxious or irritable
- goose pimples

- very restless, can't sit still

- heavy yawning

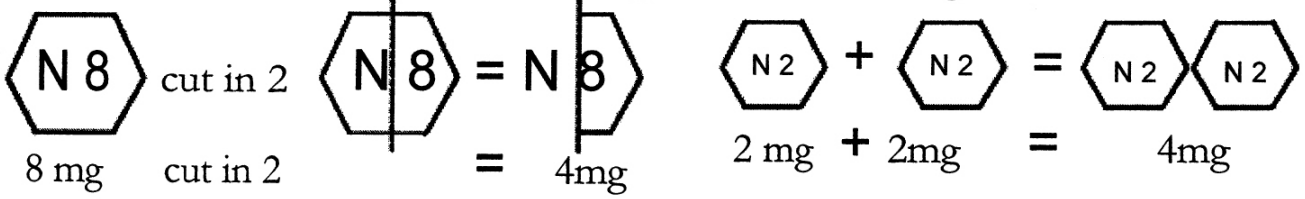
- enlarged pupils

- runny nose, tears in eyes

- stomach cramps, nausea, vomiting, or diarrhea

First Dose: 4 mg of Buprenorphine (Bup) under the tongue.

This is one half of an 8 mg tablet or two 2 mg tablets:



Put the tablet (one half tablet of 8mg tabs, or two tablets if 2mg tabs) under your tongue. Keep it there. If you swallow Bup tablets they will not work, the medicine is best absorbed through the thin skin on the bottom of your tongue.

It takes 20-45 minutes for the medication to be absorbed and have an effect. Feel better? Good, the medicine is working. Still feel lousy after 45 minutes? Don't worry, you just need more medication.

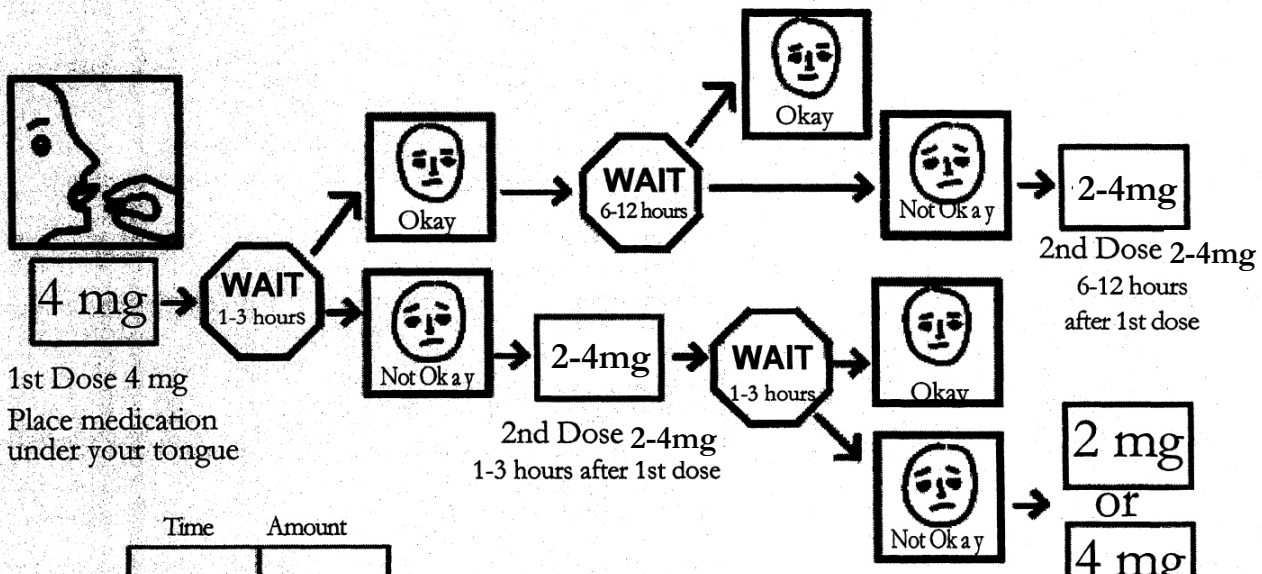
At 1-3 hours (60-180 minutes) after your first dose, see how you feel. If you feel fine after the first 4 mg, don't take any more, this may be all you need. If you have withdrawal feelings, take another **2** mg dose under your tongue. **You can repeat 2mg again 3 hours later.**

Later in the day (6-12 hours after the first dose), see how you feel again. If you feel fine, don't take any more. If you have withdrawal feelings, take another 2 or 4 mg dose under your tongue.

Do not take more than 12 mg of Bup on the first day.

Most people feel better after the 4-12 mg on the first day. Still feel really bad, like a bad withdrawal? **Use the other medications prescribed to treat the withdrawal (see below).**

Day One Summary: 4 mg under your tongue, wait 1-3 hours. If still feel sick, take 2-4 mg again. Wait 1-3 hours. If still sick, take 2-4 mg again. Do not take more than 12 mg on Day 1.



	Time	Amount
1st Dose		4 mg
2nd Dose if needed		
3rd Dose if needed		

= Total mg taken on Day One

★ No more than 12 mg on Day One

How's it going?
Still feel really bad?
Use the other meds:

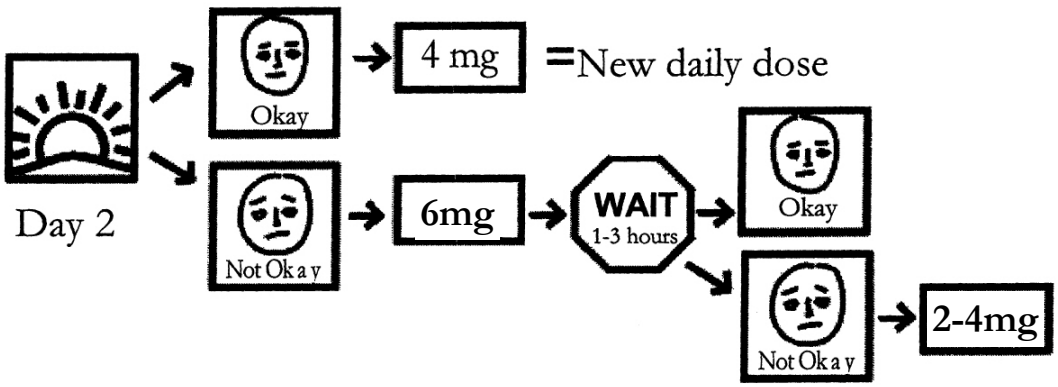
Ibuprofen for aches
Clonidine for chills
Pregabalin for anxiety or sleep difficulty
Nabilone for sleep

Day Two: The right dose depends on how you felt on Day One

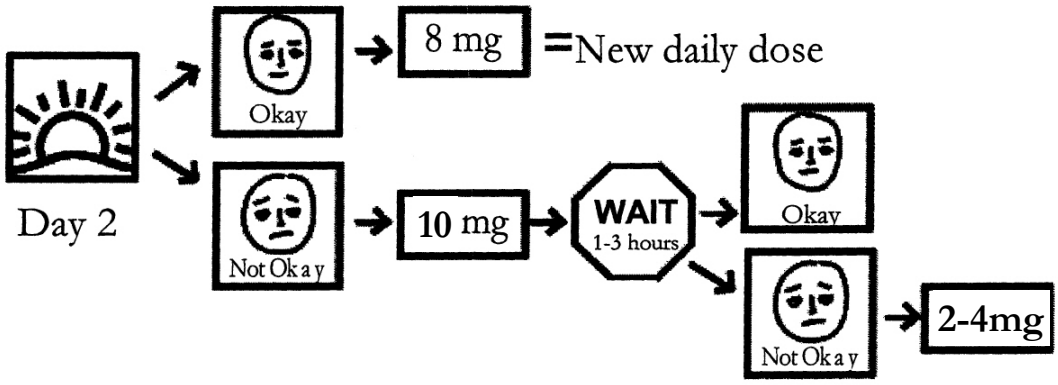
If the total on Day One was	
4 mg	If you took 4 mg total on Day 1 and feel fine the next morning, then take 4 mg again on Day 2. This will be your new daily dose. If you took 4 mg total on Day 1 and feel some withdrawal the next morning, then try starting with 6mg mg on the morning of Day 2. Later in the day on Day 2, see how you feel. If you feel fine, there is no need to take more. If you still feel withdrawal, you can try taking another 2-4mg dose
If the total on Day One was	
8 mg	If you took 8 mg total on Day 1 and feel fine the next morning, then take 8 mg again on Day 2. This will be your new daily dose. If you took 8 mg total on Day 1 and feel some withdrawal the next morning, then try starting with 10 mg on the morning of Day 2. Later in the day on Day 2, see how you feel. If you feel fine, there is no need to take more. If you still feel withdrawal, you can try taking another 2-4mg dose
If the total on Day One was	
12 mg	If you took 12 mg total on Day 1 and feel fine the next morning, then take 12 mg again on Day 2. This will be your new daily dose. If you took 12 mg total on Day 1 and feel some withdrawal the next morning, then try starting with 14mg on the morning of Day 2.

Day Two Summary: 4-16 mg total, depending on how much you took on Day 1.

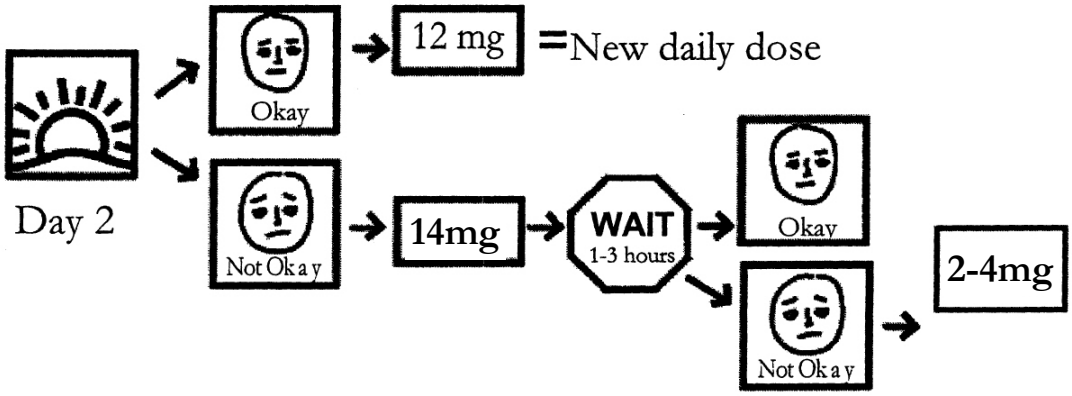
If the total on Day One was **4 mg**



If the total on Day One was **8 mg**



If the total on Day One was **12 mg**



	Time	Amount	
1st Dose			= Total mg taken on Day One
2nd Dose if needed			
			= Total mg taken on Day Two

Still feel really bad?
Use the other meds (See above)

Day Three

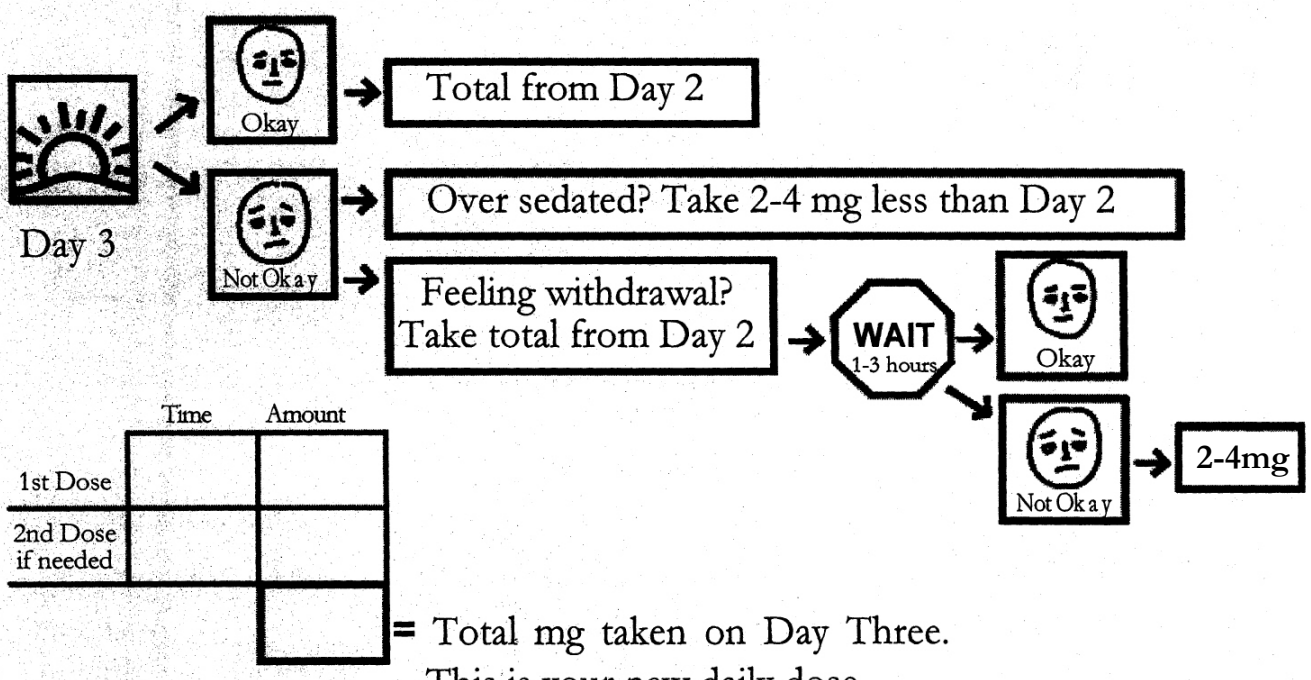
The right dose for you on Day 3 depends on how you felt on Day 2. Did you still feel unwell, like you were in some withdrawal by the evening or night of Day 2? Or did you feel like the medication was too strong, leaving you too groggy or sedated? Different people need different doses of Bup: some feel fine on just 4 mg per day, and others can need up to 24 mg per day to feel comfortable.

If you felt good at the end of Day 2, repeat the dose you took on Day 2. This is your new daily dose.

If you felt too tired, groggy, or over sedated on Day 2, try taking a lower dose on Day 3. Take 2-4 mg less on Day 3 than you took on Day 2.

If you still felt some withdrawal at the end of Day 2, start Day 3 by taking the same total dose you took on Day 2. If you still have withdrawal symptoms later on Day 3, take another 2 mg later in the day.

Day Three Summary: Take the total Day 2 dose under your tongue in the morning. You can try a little less if the Day 2 dose felt too strong and you can take an extra 2 mg dose if you still feel withdrawal.



Day Four and Beyond

On Day 4 and beyond, take the dose you used on Day 3. This is now your daily dose.
Do not adjust your daily Buprenorphine dose any more until you see your doctor. Use the other medications to make you feel more comfortable: Ibuprofen for aches and pains, clonidine for chills and sweats, pregabalin for anxiety or sleep difficulty, nabilone for sleep difficulty. Remember that these meds might make you drowsy. You should not be driving during the time you are switching to the Buprenorphine.

★ Never take more than 24 mg of Buprenorphine in one day.

★ **See your doctor for follow-up on Day 4.**

Adapted from: Lee JD, et al. J Gen Int Med 2008;24(2):226-32 by Dr R.D. Jovey, MD

Opioid Switching / Rotation in Chronic Non-Cancer Pain

R.D. Jovey, M.D. 2015

One of the principles of optimizing opioid therapy is dosing to effect or to the point of persistent and unmanageable side effects. Due to incomplete cross-tolerance, some patients will respond with a better balance of analgesia vs. side effects to one opioid molecule compared to others. One explanation for this could be related to subtle differences in the various opioid receptor genetic splice variants. This may also result in relative tolerance to one opioid molecule, which may be quite different with another opioid.

When persistent unmanageable adverse effects limit further titration of a given opioid, or a patient is developing progressive tolerance, one accepted strategy is to switch to a different opioid molecule. There are at least 2 methods to accomplish this. Which one is chosen depends on factors such as: physician experience, patient age and medical comorbidities, hepatic or renal impairment, concurrent medications, frequency of medical follow-up and the availability of others to monitor the patient at home.

1. Abrupt switch from one opioid molecule to another

Advantages: accomplished faster, simpler, less chance for patient confusion
Disadvantages: due to incomplete cross-tolerance, some patients may experience temporary withdrawal symptoms during the switch until the dose is titrated to effect again, while in others, even with a 50% calculated dose reduction, some patients may be at risk for overdose

Method:

a. calculate the total daily dosage of the current opioid (including breakthrough meds)
b. use an opioid equivalence table (see table on next page) to calculate the final total daily dosage of the new opioid molecule
c. switch to 50% of the final calculated daily dosage of the new CR opioid and titrate with an IR opioid formulation taken q4h until pain is adequately managed
d. optimize the dose of CR opioid based on the amount of IR opioid required

Example: A patient is taking 60mg of SR morphine q8h plus 10mg of IR opioid QID for breakthrough pain. She is complaining of persistent nausea and drowsiness and poor pain relief.

a. Total morphine dose = 60 x 3 = 180mg + 40mg = 220 mg morphine per day
b. Calculated final hydromorphone (HM) dose = 220 / 5 = 44 mg HM daily
c. Start at 44mg x 1/2 = 22 mg. Start CR-HM given 12mg q12h plus allow patient 4mg IR HM taken q4h prn (max 6 per day) and reassess in 1 week
d. In 1 week, assume the patient is taking 4mg HM x 3 doses daily = 12mg + 24mg = 36 mg HM daily. Change CR Hydromorphone to 18mg q12h and follow-up in 1 week to assess the need for further titration or breakthrough medication

2. Gradual switch from one opioid molecule to another

Advantages: Patient is less likely to experience withdrawal during the switch, may be safer in more "fragile" patients or those on high dose opioids

Disadvantage: Takes longer and is more complicated

Method:

a. Choose the new opioid molecule and calculate the equianalgesic dose of the lowest dosing strength compared to the current molecule (see below)
b. Start the new molecule at the lowest dose and as you gradually increase the dose of the new opioid weekly, decrease the dosage of the old opioid by the same equianalgesic amount until the switch is completed

Example: Same patient on a total of 220mg morphine daily and switching to hydromorphone.

a. 15mg SR morphine (SR-M) ~ 3mg CR Hydromorphone (CR-HM)
b. Week 1: decrease the SR-M dose to 45mg q8h and start CR-HM 3mg q8h. Provide the patient with some IR-HM 2mg to take q4h prn for breakthrough pain
c. Week 2: decrease SR-M dose to 30mg q8h and increase CR-HM to 6mg q8h
d. Week 3: decrease SR-M dose to 15mg q8h and increase CR-HM to 9mg q8h
e. Week 4: stop SR-M and provide IR-HM 2mg to titrate q4h prn to stable pain control
f. Week 5: optimize the dose of CR-MH to q12h and reassess the requirement for breakthrough medication

*****Please Note: The tables below are only approximations that were derived in patients with experimental or acute pain. They are only a rough guideline in patients on chronic opioid therapy.**

Approximate Oral Opioid Equianalgesic Dosages*:**

Codeine 200mg ~ morphine 30mg ~ oxycodone 20mg ~ oxymorphone 15mg ~ hydromorphone 6mg

Approximate Transdermal Opioid Equianalgesic Dosages***

Morphine 30mg oral daily ~ Fentanyl patch 12mcg/hr q 3 days ~ Buprenorphine patch 15mcg/hr q 7 days

Switching to Methadone:

There is no predictable, consistent methadone equianalgesic dose compared to other opioids. Also methadone has a long and variable terminal half-life. Therefore the initial titration is the riskiest time for a serious adverse effect. It is always safest to begin by tapering the dosage of the old opioid until withdrawal symptoms are experienced and then start with a low dose of methadone 5-10mg bid- tid and titrate by 5-10mg every 5-7 days. With every methadone dose increase, decrease the dosage of the old opioid by 1/3. Thus the old opioid will be discontinued within 3 methadone dosage titrations. If the patient experiences severe drowsiness during the switch, hold or reduce the methadone dose and finish tapering off the old opioid. When the drowsiness ends, methadone can be carefully titrated again.

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