

Chronic Pain, Opioid Dependence and Medication Assisted Treatment with Buprenorphine (Suboxone)

Committing to Best Practices

Grace Katie Bell MSN RN-BC CARN PHN

Chapa-De Indian Health Program

By the numbers

- Since 2008, 115,000 Americans have died by overdose. An overall death rate of 9 per 1000.
- 3 out of 4 persons with heroin addiction began with prescription opioid analgesics – this includes those who obtained these pills on the streets.
- 1.9 million addicted to prescription pain pills and 586,000 are addicted to heroin.
 - (California Healthcare Foundation, 2016, 3)

By the numbers, cont'd

- In 2012, *259 million* Rx for opioids were written – enough for every adult to have a bottle of pills.(CDC MMWR 03/16).
- Disability - Receipt of opioids for >7 days, at least 2 Rxs, or 150 mg MED doubled risk for 1 year disability, after adjustment for pain, function, injury severity (Spine 2008: 33: 199-204).

Chronic Non-Cancer Pain

- Definition: chronic pain is pain that lasts past 3 months.
 - Complex syndromes
 - Musculoskeletal
 - Joints
 - Degenerative disc disease
 - Fibromyalgia
 - Lower back pain
- Psychological and emotional suffering
- Losses

Suffering

- The relationship one has with their pain
 - Poor access to better therapies
 - disabilities
- Psychological and emotional suffering
- Losses
- Opioids numb physical and emotional and psychological pain.

Opioid Induced Hyperalgesia (OIH)

- A medical phenomena identified as side effect of long term opioid therapy
- Needing more opioids and receiving less relief
- An increased sensitivity to all pain
- Resolves slowly over 6 months after opioids are stopped.
- Some studies have shown that buprenorphine helps resolve this syndrome – antihyperalgesic.

Holistic Approaches

- It is becoming increasingly clear that treatment for chronic pain must include patient education where Mindfulness, Qi Gong and strategies for quality life are taught.
- Include: pacing, diet, exercise, sleep, social environment.

Chronic Pain + Opioid Dependence

- Up until recently, chronic pain management often became about maintaining the iatrogenically acquired opioid dependence than treating the pain.
- There is very little evidence that opioids are effective in treating pain.
- Opioids change perception of pain, including psychological pain.

Opioid Dependence

- Complex addiction

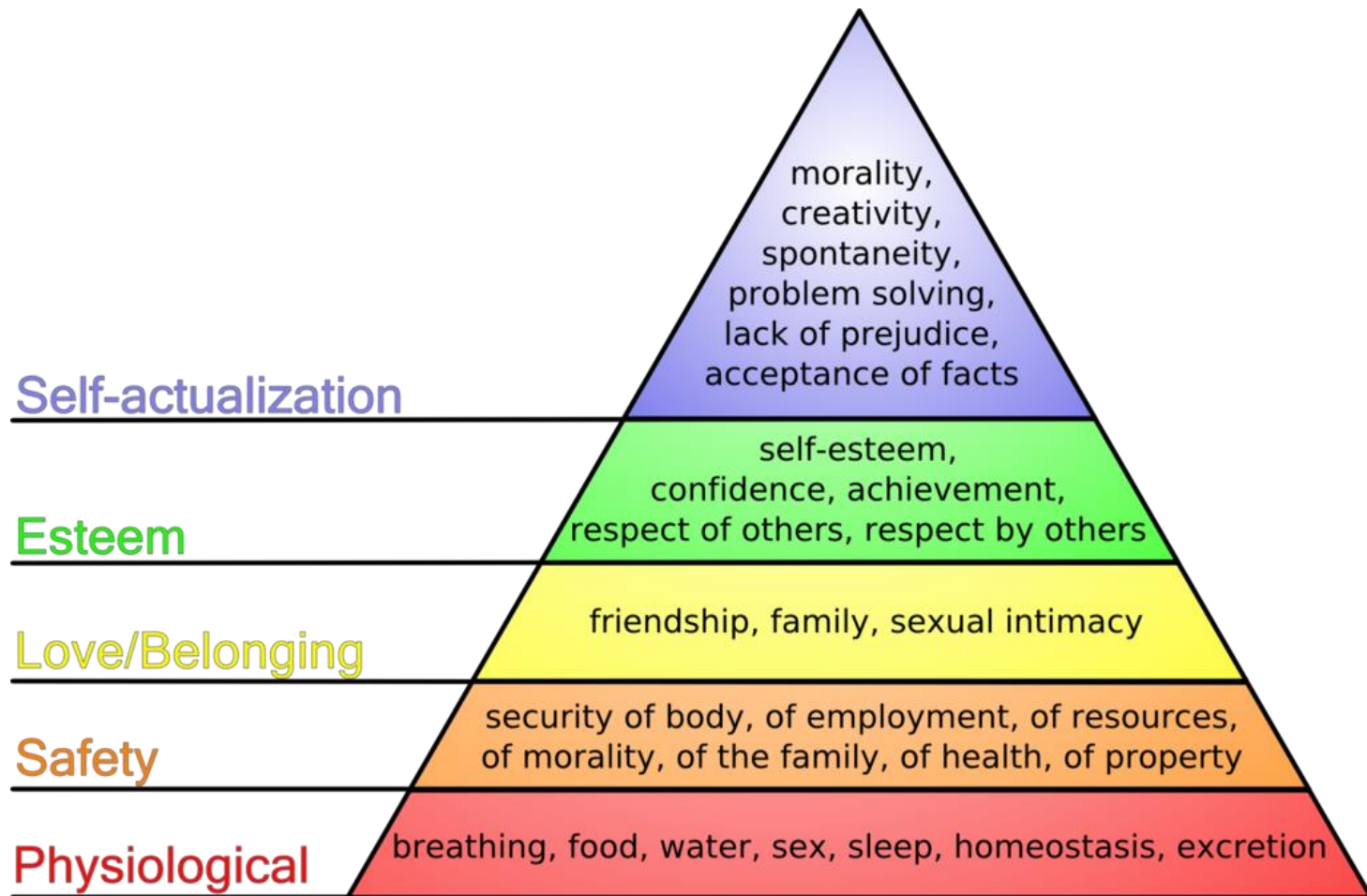
- The human brain loves opioids, produces its own: endorphins (endogenous morphine).
- Relapse rate for heroin addiction is 80-90%
- The arc of severity starting with chronic pain
- Leads to heroin

Opioid Use Disorder is on a continuum from mild to severe. The criteria are: tolerance, withdrawal, craving, loss of control, increasing consequences, loss of engagement in life, increasing health risks. (DSM-5).

Dopamine

- “We need three things to survive (besides oxygen): food, water and dopamine. If you deprive study subjects of water for three days, then put them in a functional MRI and place water on their lips, the relative size of the craving is like a baseball. Do the same with food, and it is like a basketball. Then take someone with an addiction to opioids, up to one year after their last use, and talk about OxyContin while they are in a functional MRI, and the relative size of that craving is the size of a baseball field.” (Corey Waller MD, 2016)

Maslow's Hierarchy of Human Needs



Opioid Use Disorder

- A person who has been prescribed opioid analgesics for chronic pain may never go through withdrawal until something happens. May not have understanding of their secondary (and more dangerous) health diagnosis – opioid dependence.
- Relief: of pain; relief of cravings related to physiologic opioid dependence.

Craving and Triggers

- A craving is a persistent thought. The brain calling for relief.
- Trigger can be emotional and or physical pain, visual cues (driving by one's dealer's house) escalating pain, friends who use. It is a desire, urge.
- A triggers can lead to craving.
- Important to teach patients in recovery to understand the distinctions between cravings and triggers.

Stigma, attitudes, language

- No longer use the word “abuse” – rather: substance use disorders (diagnostic term) or “misuse” when describing behavior.
- Urine drug screens (UDS) are positive or negative rather than “dirty” or “clean”
- Persons with addiction rather than “addicts”
- “Relief seeking” rather than “drug seeking”
- Trauma informed care
- Underlying symptoms of trauma common to person with opioid use disorders.

Stigma, attitudes, language, cont'd

- Misunderstanding among the 12 Step and Recovering community about **medication assisted treatment** with buprenorphine can cause stable patients to taper off so that they can be considered 'sober' in their fellowship.
- Historically, 12 Step communities were equally resistant to the use of SSRI treatment when introduced in 1988. Practicing medicine through the 12 Step culture.

Opioid Withdrawal, Buprenorphine Induction and Precipitated Withdrawal

- The purpose of a safe induction is to prevent precipitated withdrawal. This occurs when the receptors are still holding an activating full agonist opioid. The buprenorphine with its high affinity for the receptor will knock the full agonist off, occupy the receptor and a rapid loss of activation occurs. Intense rapid onset of withdrawal symptoms.

Clinical Opioid Withdrawal Scale (COWS)

- 11 symptoms measured: HR, Pupil dilation, aches, sweats, flushing, lacrimation, rhinorrhea, anxiety, tremors, GI, yawning, and gooseflesh.
- If COWS are not high enough then wait.
- Time from last use to start of buprenorphine
- Heroin and Fentanyl – shortest acting
 - 24 hours from last use
- Short-acting opioid analgesics (Dilaudid, Percocet, Norco, etc.) – depending on quantity \.
 - 48 hours from last dose

Induction/COWS cont'd

- Long-acting (Oxycontin, MS Contin)
Methadone
 - 72 hours since last use
 - The risk for precipitated withdrawal syndrome from Methadone is highest.
 - If transitioning from METHADONE to buprenorphine, methadone dose must be down to less than 30mg/d.
 - Must be 104 hours since last dose, Must have a COWS of at least 15.

Medication Assisted Treatment with Buprenorphine

- Partial opioid agonist
- High affinity for mu receptors
- Low intrinsic activity
- Long acting – half life is 37 hours
- Ceiling effect at about 16 mg - opioid dependent patients do not experience euphoria at this dosage. If they do, this very mild euphoria resolves within a few days.
- Because of the high affinity effects of other opioids rarely felt.
- Metabolized through the liver and primarily excreted through bile.

Buprenorphine – some history

- First developed as a post-op analgesic in 1978.
- Semi-synthetic opioid/ Schedule III narcotic
- First used in Europe for treating opioid dependence in 1996.
- Approved by FDA in 2002 to treat opioid dependence.
- Veterinarians use for pain analgesic for animals
- 2000 –DATA
- Comprehensive Addiction Recovery Act of 2015

Buprenorphine properties

- Sublingual 2 mg or 8 mg – tabs or most used, film strips
- Manages Cravings
- Withdrawal
- Minimal and transient euphoria
- Long – term use: Less is More
- Access is biggest problem only 32,000 waived prescribers – a fraction of those do prescribe.

Buprenorphine as a street drug

- Most valued, diverted drug on the streets
- Rarely used for euphoria – there are better options.
- Self-treatment of withdrawal symptoms.
- Anecdotally, family members will buy on the streets to help manage withdrawal. One buprenorphine prescriber calls it: “altruistic diversion”.

Medication Assisted Treatment

How to build a program

- Prescribing MDs – waived
- Induction team –RN, MA, MD
- Policies and procedures
- Clear, enforceable treatment agreements
- Begin with weekly rx and weekly MD visits
- Good pharmacy in place
- Good billing – know the codes
- Release of Info for all providers of care

MAT-B How to build a program, cont'd

- Must meet the DSM-5 criteria for opioid dependence which now includes craving along with tolerance and withdrawal along with behaviors of taking more than prescribed, obtaining on streets, etc.
- Must be carefully screened for alcohol and benzodiazepine abuse or dependence.
- Must be screened for any serious, untreated psychiatric co-morbidities.
- Must be screened for Suicidal or Homicidal ideation or recent attempts.

Methadone Maintenance

- Methadone is a full agonist, long-acting opioid used for Opioid Replacement Therapy (ORT) and also used for chronic pain.
- Methadone clinics – highly regulated, daily dosing, patients are case managed

Methadone

- 1. Methadone clinics offer tighter structure and support which might offer more benefit for some with poor impulse control.
- 2. Some patients do not want to give up getting high. The phenomena of hypo-dopaminergic?
- 3. For some, those with severe trauma, the numbing of those symptoms may be preferred over enduring re-introduction of those symptoms. May not have the coping strengths.

Naltrexone

- Naltrexone 50 mg by mouth daily. Opioid receptors antagonist. The patient must be motivated to take. Other opioids must be out of the system.
- Naltrexone injectable – monthly Vivitrol.
 - site pain
 - painful injection
 - there is a fear among those with opioid addiction that if they need pain relief for acute situations that it will be a block.

Naloxone Toolkits

- Directives from Federal and State government that Opioid Overdose Reversal Kits are available to all persons with opioid dependence.
- Narcan nasal insulfate see Narcan Now app for smartphones.
- Also injectable with carpu-jet/individual dose vials.
- Pharmacies need to step up more.

Recovery

- Care of the broken hearts and devastated lives. Establishing therapeutic alliance.
- A good approach to starting medication assisted treatment is to enroll in treatment program such as outpatient treatment or if indicated, using the American Society of Addiction Medicine (ASAM) criteria, residential treatment prior to induction planning.
- The needs of someone with addiction to opioid analgesics with chronic pain different from heroin users.

Recovery

- Narcotics Anonymous – abstinence based 12 Step approach may not welcome persons on buprenorphine
- The needs of someone with addiction to opioid analgesics with chronic pain different from heroin users.
- Support groups. Chronic pain groups. Patient Education.
- It takes time.

References

1. Center for Disease Control MMWR, CDC Guideline for prescribing opioids for chronic pain 2016
2. Masters, b., Rainwater, M. Recovery within reach: Medication assisted treatment of Opioid Addiction Comes to Primary Care. California Health Care Foundation, 2016.
3. Waller, C. Medication assisted treatment guidelines for opioid use disorders, 2014.
4. Spine 2008; 33:199-204 (CDC)

Recommended

- Pocket Guide Medication-Assisted Treatment for Opioid Use Disorder

<http://store.samhsa.gov/shin/content//SMA16-4892PG/SMA16-4892PG.pdf>

CDC Guidelines for prescribing opioids for Chronic Pain

<http://www.cdc.gov/mmwr/volumes/65/rr/rr6501e1.htm>

Recommended

- SAMHSA – Treatment program locator:
<https://www.findtreatment.samhsa.gov/>
- Kingpins – by Jason Smith
<https://medium.com/addiction-unscripted/kingpins-1fa9331c705d#.832sri87m>
- Dr. Russell Portnoy youtube
<https://www.youtube.com/watch?v=DgyuBWN9D4W>

Recommended

- Recovery Within Reach: Medication Assisted Treatment of Opioid Addiction Comes to Primary Care
 - <http://www.chcf.org/publications/2016/03/recovery-reach-medication-assisted-treatment>
- Medication Assisted Treatment Guidelines for Opioid Use Disorders – Dr. Corey Waller
 - <https://www.google.com/search?q=Medication+assisted+Treatment+Guidelines+Dr.+Corey+Waller&ie=utf-8&oe=utf-8>