SUBOXONE AND VIVITROL: ARE THERE DISPARITIES SURFACING IN MEDICATION ASSISTED TREATMENTS?

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GOALS AND OBJECTIVES

- Examine the potential for growing disparities between populations treated with Naltrexone and Buprenorphine.
- Be able to weigh the benefits and drawbacks of Buprenorphine and Naltrexone in order to make the best treatment decisions with patients.
- To review the pharmacology of the medications in MAT and implications for physiologic dependence

CASE A

- A 21 year old Black male is admitted for his 4th admission to an inpatient detox for his addiction to heroin. He is from Boston, states that he was asked to leave home by his family after stealing and behavioral issues. He started with pain meds after a football injury in high school and then progressed to heroin. No other medical history.

CASE B

- A 19 Caucasian male from Andover, MA is admitted to the inpatient detox for detoxification from IV heroin. He states that he has been using heroin for one year, going in out of detox centers without success. He reported that he started experimenting with illegal substances as a teen, that led to his heroin addiction. He is unemployed, was asked to leave his home by his parents after continued substance use, stealing and erratic behavior. No other medical history.

QUESTIONS FOR YOUR CONSIDERATION

- How do you approach the post detox plans for this patient?
- Which medication assisted treatment if any, would you offer?
- What are the short and long term implications of your choice?
- What algorithms do you use that would impact your decision making?

RISK STRATIFICATION

- Risk stratification for SUD opioids
  - Well researched
- Risk stratification for relapse once treatment is started
  - Some data, lots of research opportunities

RISK STRATIFICATION

- Prior to use:
  - demographics: youth, male gender, white race;
  - Co-morbidities: psychiatric, alcoholism, pain
  - SDH: ACE
- During treatment:
  - Higher mortality: alcoholism (OR2.4), IVDU, etoh OR 1.8), co-morbid personality dis. (OR 2), first use <14 or > 20 (3)

RISK STRATIFICATION

- Relapse risk:
  - ~ 30% relapse within rx, 80% outside
  - Living with heroin user (OR 12), cocaine use s 30 days (OR 5), hazardous etoh (OR 4), receiving food assistance before rx (5.5) (ref. #4)
- How can we extrapolate for non traditional risk stratification?

PHARMACOLOGY BUPRENORPHINE

- Thebaine derivative, used as an analgesic
- Effect last about 6 hours
- Partial agonist acting on the mu opioid receptor (reaches a ceiling where higher doses do not increase effect)
- Increase dosages do increase duration of withdrawal suppression and opioid blockade
- At low doses may be more potent that morphine

PHARMACOLOGY CONTINUED BUPRENORPHINE

- Has high affinity for but low intrinsic activity at mu receptors
- Displaces morphine, methadone and other full opioid agonists from receptors
- Full agonists cannot displace it and therefore will not exert an opioid effect on receptors already occupied by buprenorphine
- Has a slow dissociation rate from the mu receptor, which prolongs suppression of opioid withdrawal and blockade of exogenous opioids
- Abuse of buprenorphine occurs via the sublingual and intranasal routes but primarily via diversion of sublingual to the injection route

PHARMACOLOGY-NALOXONE

- Naloxone prevents or reverses the effects of opioids including respiratory depression, sedation and hypotension
- A pure opioid antagonist, it does not posses the "agonistic" or morphine like properties of other opioid antagonists
- Has not been shown to produce tolerance or cause physical or psychological dependence
- In vitro evidence suggests that naloxone antagonizes opioid effects by competing with opiate receptor sites in the CNS (primarily the mu receptor)

PHARMACOLOGY CONT'D NALOXONE

- When administered via IV, the onset is generally within two minutes
- The duration of action is dependent upon the dose and route of admin
- IM produces a more prolonged effect than IV
- Since the duration of action may be shorter than some opiates, the effect of the opiates may return as the naloxone dissipates
- Metabolized in the liver, excreted in the urine

INDICATIONS FOR USE NALTREXONE

- Naltrexone works for highly motivated people who can get through opioid withdrawal and remain opioid-free for at least seven to ten days prior to beginning treatment.
- It is a good option for those who want to eliminate all opioids right away and for people who do not want to deal with withdrawal when they stop MAT.
- The injectable form is helpful for people who have a hard time with daily pills or frequent appointments.
- Since naltrexone is also approved for treating alcohol problems, it may be helpful if people also wish to avoid drinking.

NALTREXONE WARNINGS

- High risk of opioid overdose if people treated with naltrexone use large amounts of opioids to try to override blocking effect
- Moderate to high risk of opioid overdose during relapses into opioid use due to lowered tolerance
- Risk of causing severe withdrawal symptoms if administered to opioid-dependent patients without waiting seven to ten days from last use
- Risk of canceling effects of opioid pain medications given in a medical emergency
- Risk of depression and suicidal thoughts
- Risk of injection site reactions, some severe

INDICATIONS FOR USE BUPRENORPHINE

- **People who are:** Best treated in doctors' offices;
  - Motivated to try buprenorphine;
  - Able to adhere to a treatment plan;
  - Being treated for HIV/AIDS;
  - Pregnant or post partum

BUPRENORPHINE WARNINGS

- High dosages may stop a person's breathing
- Moderate to high risk of overdose when combined with other substances, including alcohol
- High risk of overdose when combined with benzodiazepines (Valium, Ativan, Xanax)
- Risk of driving impairment at the start of treatment or during dosage adjustments
- Possible risk of liver damage

DISPARITIES/SOCIAL JUSTICE

- "The arc of the moral universe is long, but it bends towards justice."
- Our bend in the curve: treating SUD
- Ideal versus good enough: where and how do we draw the line?

WHAT SHOULD AN EFFECTIVE PROGRAM LOOK LIKE?

- Patient choice
- Informed staff
- Integration with mental health
- Reviewing outcomes
- Look for disparities, unconscious bias
- Use and refine evidence based algorithms
- Evaluate effectiveness

REFERENCES

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