

Opioid Review and MAT Clinic Comorbidities Associated with Opioid Overdose

March 7, 2018

Learning Objectives

- Differentiate the medical diagnoses that increase the risk of taking opioids
- Identify the medications that increase the risk of taking opioids

Announcements

Depression

- Increased risk of patients with depression especially at high doses
- Investigations were unable to separate unintentional OD vs. suicide
 - Turner B; Liang Y. J. Gen Intern. Med. 2015; 30: 1081-96.



History of Substance Abuse/Dependence

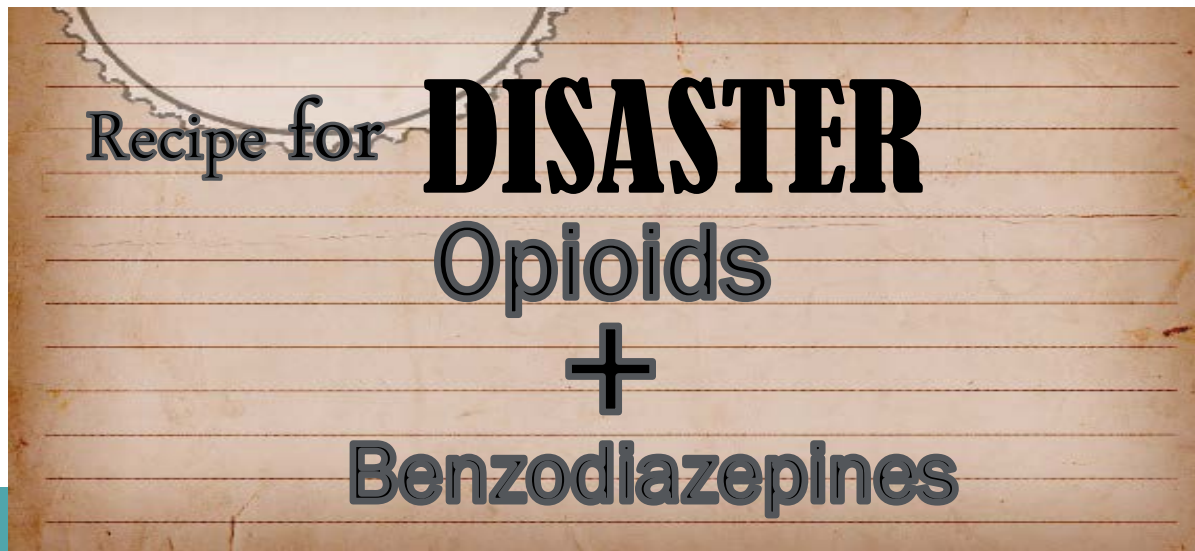
- 2-4x more likely to OD than patients without history of substance abuse

CDC Guidelines References (66,24,23)



Benzodiazepines

- Co-prescriptions are associated with increased risk of fatal overdose.
- Three separate studies of opioid overdose found evidence of concurrent benzodiazepine use in 31-61% of deaths (CDC 67,128,129)



Falls/Elderly

- 4X more likely to fall on opioids than on NSAIDS



Chronic Kidney Disease

- Renally excreted opioids and metabolites can accumulate and cause life threatening symptoms
 - Tramadol preferred if needed
 - Methadone metabolizes liver- minimal accumulation in chronic kidney disease
 - Codeine- not recommended
 - Morphine- avoid if creatinine clearance <30
 - Hydrocodone- 25% renal
 - Oxycodone- can be used, dose adjusted substantial renal excretion



COPD and Opioids

- 50% of patients with COPD get opioids for chronic pain
 - Infrequently for “breathlessness” and more often for musculoskeletal pain
- Conclusion of letter- “although there is evidence to support careful use of opioids for refractory respiratory symptoms among selected individuals with COPD.”

(Ahmed et al. International Journal of Obstructive Pulmonary Disease. 2016 11:2651-2657)

COPD and Opioids

- Ahmed et al showed that opioids are associated with adverse outcomes, and therefore should not be given to those patients for reasons not supported with scientific evidence such as musculoskeletal pain.

COPD and Opioids

- COPD affects 4-10% of Canadian population
 - 5 year mortality 40-70% depending on severity
 - 2 year mortality with severe COPD- 50% when on opioids
 - Also increased risk of ER visits, hospitalization, and use of antibiotics/steroids
 - Some evidence not dose related

Nicholas t. Vozoris et al. European Respiratory Journal. July 2016. DOI 10.1183/13993003.01967-2015)

Alcohol

- Microsomal ethanol oxidizing system (MEOS)
- Both ETOH and the major opioids are metabolized in part by the hepatic MEOS system
- Separately they augment MEOS activity



Alcohol

- Together slower disposals rates likely increase toxicity
- Ethanol may modify some opiate receptors and also the effects of opioids
- Opiate addicts and patients on methadone have unusually high rates of alcoholism

(J. Advances in Alcohol and Substance Use)

Alcohol

- ETOH: involved in 18.5% of opioid abuse ER visits and 27.2% of benzo related visits
- ETOH related to 20% of OD deaths with opioids or benzos

MMWR Oct 10, 2014. 63(40) 881-885.

- Ethanol and oxycodone cause greater ventilation depression than either alone, with the magnitude being clinically relevant. Elderly patients more affected.

Effects of Ethanol and Oxycodone. Anesthesiology (126)3: 534-542. March 2017.

Sleep Disorder Breathing

- Opioids predispose to central sleep apnea and to a lesser extent OSA
- 24% increase of CSA in long term opioid user

J. of Clinical Sleep Med. Vol 12. No. 04. Medium increased risk for central sleep apnea...in long term opioid users.

- Methadone and high dosing >200 MME and combination with benzos increases risks



Cough Syrups (Narcotic)

- FDA: “The risks of slowed or difficult breathing, misuse, abuse, addiction, overdose, and death with medications outweigh the benefits in patients younger than 18.”

Cough syrup +
pop, jolly ranchers,
beer or wine coolers =
Purple drank
Sizzurp
Lean
Purple



Cough syrup as a cough suppressant is not supported by available evidence. *Current Opinion Allergy Clinical Immun. 2007 Feb 7(1) 32-36.*

Hydrocodone/Codeine Cough Syrups

- “Neither codeine nor hydrocodone had any effect on cough duration or intensity in the study.”

Wester Journal of Med. 2000 Oct 173 (4) 283.



Obesity

- Associated with chronic non cancer pain- specifically knee, hip, back and overall body pain, as well as headache, stomach pain and so on

Comorbidity of Obesity and Pain. J. Pain. 2007 May 8(5): 430-6.

- As BMI increases, there is a proportion increase in incidence pain
- As of 2007 an association between opioid use and obesity had not been demonstrated