Addiction Medicine for the Homeless

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Disclosures

BZ and JE are employees of the San Francisco Department of Public Health

There are no relevant financial or personal relationships that could cause bias in this presentation

BZ and JE do not accept money, gifts, incentives from the pharmaceutical industry or addiction treatment industry
Objectives

Fight stigma

Review practical treatment strategies for our patients

Share new approaches to treatment

Address your questions
Brains that evolved to get “hooked” + Substances that strongly activate reward pathways +

Brain mechanisms of homeostasis

Positive reinforcement: “I love getting high”
Negative reinforcement: “I use to feel normal”
Outcomes Relevant to Harm Reduction

Quality of Life
Autonomy
Survival
Reduction in Use
Moderation
Decrease in infectious disease
Abstinence
FACING ADDICTION IN AMERICA

The Surgeon General’s Report on Alcohol, Drugs, and Health

U.S. Department of Health & Human Services
Trump’s Health Secretary Says Addiction Meds Are “Substituting One Opioid For Another”

Tom Price apparently hasn't read his own agency's guidelines on the topic.

JULIA LURIE  MAY. 10, 2017 9:46 PM
Greatest Harms for Substance Users

Cigarette smoking related illnesses

Alcohol related problems

Everything else is a distant 3rd
Alcohol Use Disorder

Chronic relapsing condition

Affects 6.4% of people aged 12 and over

World wide almost 2 million deaths per year attributed to AUD

GREATLY UNDERTREATED
Conceptual Framework for Neurobiological Bases of the Transition to Excessive Drinking

- Binge Intoxication
- Withdrawal Negative Affect
- Response to Alcohol
- Stress and Reward
- Preoccupation Anticipation

Neurocircuits ↔ Synaptic Systems ↔ Molecules

Neuroadaptation

NIH National Institute on Alcohol Abuse and Alcoholism
Neurocircuitry/Neurochemistry of the “Dark Side” of Addiction Overlap with Neurocircuitry of PTSD

↑ Corticotropin-releasing factor
↑ Norepinephrine
↑ Dynorphin
↑ Vasopressin
↑ Orexin (hypocretin)
↑ Substance P

Down:
↓ Neuropeptide Y
↓ Nociceptin (orphanin FQ)
↓ Endocannabinoids

Symptom co-morbidity in PTSD and addiction
Hyperarousal
Negative affect
Dysphoria
Hyperarousal
Irritability
Sleep Disturbances
Attentional biases
Self-destructive/reckless behavior
HPA dysregulation

Alcohol Use Disorder Treatment

Psychosocial interventions most common

As many as 70% relapse after psychosocial treatment alone

Medication for Addiction Treatment (MAT) may increase abstinence or reduction of heavy drinking
Medication For Addiction Treatment

3 meds FDA approved for Alcohol Use Disorder

Naltrexone
Acamprosate
Disulfiram
Naltrexone

Works in the brain to block certain opioid receptors, which reduces the reinforcing effects of alcohol consumption.
Naltrexone:
Pros

Can be initiated while patient is still drinking

15-25% reduction in heavy drinking vs. placebo

Available orally or as long acting injectable

Intermittent/as needed dosing “Sinclair method”

Highest efficacy of med options
Naltrexone: 
Cons

Blocks opiates, so not useful for patients who use opiate based medications or drugs.

Side effects: usually minor, but most common: nausea, HA, anxiety, sedation.

Contraindicated with decompensated cirrhosis.
DISULFIRAM

Aka Antabuse

Causes alcohol to be metabolized in a way that causes the user to develop nausea, HA, flushing, tachycardia, and shortness of breath

Patient must be abstinent for a minimum of 12 hours to start treatment
Gabapentin

May increase abstinence rates, and reduce alcohol consumption

Particularly useful for people with chronic pain, sleep disorders

Higher doses more effective

Can use as adjunctive treatment with naltrexone
Topirimate

Works on GABA and dopamine

Useful for reducing cravings in some people
Varenicline

Works on dopamine pathway to decrease reward

Commonly used for smoking cessation, useful for patients who do both

May reduce cravings and alcohol consumption
Advances in Opioid Use Disorder Treatment

Still only 3 FDA approved drugs in USA

- Methadone
- Buprenorphine
- Naltrexone

Other opioids available elsewhere in world
Including Rx’d heroin
METHADONE
Opioid agonist
Tx within Opioid Treatment Program
Highly structured

BUPRENORPHINE
Partial agonist
Office based treatment within primary care
What’s new with methadone?

NOTHING
Buprenorphine

Recognition of effect on multiple receptors

Effectiveness in pain

May be preferable to MMT in pregnancy

Models to lower barriers to treatment
New Buprenorphine Forms and Formulations

ADHERES → DISSOLVES → DELIVERS

- Bi-layered film technology
- Active drug in the muco-adhesive layer
- Backing layer facilitates unidirectional flow of drug
- Adheres to oral mucosa in < 5 seconds
- Completely dissolves within 15-30 minutes
- Minimal taste issues
- Rapid drug absorption
- Designed to optimize delivery across the mucosa
Seizing on Opioid Crisis, a Drug Maker Lobbies Hard for Its Product

By ABBY GOODNOUGH and KATE ZERNIKE  JUNE 11, 2017
Naltrexone for Opioid Use Disorder

Oral or 1 month injection

Positive outcomes and FDA approval based on research in Russia

Increased risk of overdose when wears off

Surprisingly appealing to many users
But really: Isn’t MAT just exchanging one addiction for another?

You know the usual arguments in favor but do you know about..

Improvement in physiology

Stress responses improved

Stabilization in neuro-immune-endocrine system

Sexual function improves
Fentanyl and Carfentanil: Potent synthetic opioids
Naloxone Nasal Spray

NARCAN® (naloxone HCl) NASAL SPRAY 4 mg

DO NOT TEST DEVICES OR OPEN BOX BEFORE USE.
Use for known or suspected opioid overdose in adults and children.
This box contains two (2) 4-mg doses of naloxone HCl in 0.1 mL of nasal spray.

Two Pack

CHECK PRODUCT EXPIRATION DATE BEFORE USE.
Coming soon?:
Safe Consumption Services
PHARMACOTHERAPY FOR
STIMULANT
USE
DISORDER

MIGHT WORK

Treat co-occurring disorders
Psychostimulants at higher doses, in people with ADHD
Disulfiram (for cocaine only)
Buprenorphine with naloxone, Naltrexone
Buspirone, other D3 agonists
Varenclcline
Combos of meds

WORTH A TRY

Modafinil (in non-alcohol dependent)
Topiramate
Cocaine vaccine (under research)
Mirtazapine (for meth)
Bupropion (less severe meth users)
Cannabis

Implications of legalization

Effect on developing brain

Encouraging high CBD strain use

Mislabeling, fraud and analysis

Cannabis use disorder and withdrawal

Hyperemesis
Synthetic Cannabinoids

Why do people like them?

How come they mess some people up so badly?

50-300 X more potent than THC
Pharmacotherapy for Tobacco Use Disorder

Nicotine - multiple forms
Bupropion
Varenicline
Combo treatment
Nortriptyline
Safer to Puff, E-Cigarettes Can’t Shake Their Reputation as a Menace

BY SABRINA TAVERNISE

A growing number of experts say that the portrayal of e-cigarettes as a public health threat is a profound disservice to smokers who could benefit from them.

Other substances and treatments

Cathinones/other stimulants

Kratom

Ibogaine

Oxytocin

Non substance addictions

Psychedelics
Thank You to All Our Colleagues at SFDPH and Our Many Partners

Thank You to Our Patients Who We Learn From Every Day
Is Neurobiology and Precision Medicine Helping Develop Better Treatment?


Are there alternatives to benzodiazepines for alcohol withdrawal?

- BZD is standard of care and considered effective and safe but safety concerns in our population
- BZD risk in homeless populations with severe alcohol use disorder and no inpatient BZD detox available
- Valproate, gabapentin, pregabalin, topiramate, vigabatrin
- No studies in homeless type populations, or recent studies or studies comparing BZD to other drugs head to head
Does smoking cessation work in homeless populations?
Is Varenicline safe and/or effective in substance users who smoke?


How does smoking and smoking cessation effect outcomes in treating alcohol use and substance use disorders?


Are Safer Injection Facilities safe and will we see one in our town soon?


Is it possible to lower the barriers to buprenorphine treatment in homeless populations?

- Purported Barriers
  - Low interest / low uptake
  - Lack of trained providers
  - No place for induction / Won’t be able to adhere to non-facility based induction
  - Lack of financial access / lack of insurance
  - Worry re risk of diversion / misuse
  - Can’t / won’t leave stuff / pets
  - Can’t / won’t leave partner
  - Doesn’t trust doctors
  - Warrants or other criminal justice complications
  - 86’d from clinics
  - Chaotic constant drug use
  - Acute medical issues
  - Liability
Is it possible to lower the barriers to buprenorphine treatment in homeless populations?

- Current pilot underway in SF


Does cannabis cause psychosis?


Can Fidget Spinners Help Addiction Treatment?

“We now offer our clients custom Boca Recovery Center fidget spinners to help you stay focused while you’re receiving the treatment that can potentially save your life”