HOT TOPICS IN SUDs (Substance Use Disorders)

Alicia Kowalchuk, DO, FASAM
Hammad Mahmood, MD
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NO CONFLICTS OF INTEREST TO DISCLOSE
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For local illicit substance data slides:

Lieutenant Steve Casko
Lieutenant Rachel Garza
Senior Police Officer Erik ter Meulen
Learning Objectives

1. Discuss current trends in substance use in the greater Houston community.

2. List evidence-based screening and intervention options for use in the primary care setting.

3. Implement ambulatory, evidence-based SUD management in the primary care setting.
Case of Ms. B – New Patient

- 43 y/o Ms. B
- CC: med refill
- HPI:
  - 10 yrs ago she developed back and neck pain 2/2 MVA and was given hydrocodone by EC physician
  - F/u with PCP 2 wks thereafter she reported that pain persists
  - PCP gave 1 month supply of hydrocodone + PT referral
  - On 6 wks F/U she reported worsening of pain with PT so she stopped
  - Hydrocodone use 3-4 times a day to remain functional
  - Without meds she was unable to take care of her family including her then 1yr old son and 3 yr old daughter
  - PCP reluctantly refilled hydrocodone
  - Over the years she has increased to taking hydrocodone 4-6 pills/day
  - Reports has been depressed due to h/o marital difficulties and recent divorce (spouse’s infidelity)
PMH: obesity (BMI 32), h/o MVA (10yrs ago), chronic neck pain, low back pain
FH: Father “was an alcoholic,” quit after DWI, still goes to AA

PLAN
- PMPAware check ➔ Hydrocodone 120 pills/month from single provider, filled at a single pharmacy
- Records from previous PCP indicate model patient
- Pain contract signed
- Agreement to tapering use ➔ refilled 100 pills
- F/U 1 month
Case of Ms. B – Follow-up

• At 1 month f/u she reports running out pain meds early due to increase use because of taking on extra work
• Hydrocodone increased back to 120 pills/month and given f/u in 2 months

• 6 wks later pt comes to clinic disheveled appearance, diaphoretic, anxious and fidgety
• Starts crying while explaining increase in depression and, financial difficulties, stress of managing her children and poor work productivity
Case Questions

Q1. What aspects of this patient's presentation (red flags) raise concern for SUD?

Q2. In a primary care setting, what recommendations do you have for the management of pain in this patient both in the short term and the long term?

Q3. What would be the appropriate referrals for this patient?

Q4. In the Harris Health System, what management options are available and are NOT available for patients with SUD?

Q5. What difficulties do patients face in access to SUD treatment in Harris County?
Terminology

AUD: alcohol use disorder
OUD: opioid use disorder
TUD: tobacco use disorder
SUD: substance use disorder
MAT: medication assisted treatment
FASD: fetal alcohol spectrum disorders

AEP: alcohol exposed pregnancy
SEP: substance exposed pregnancy
TEP: tobacco exposed pregnancy
FAS: fetal alcohol syndrome
NAS: neonatal abstinence syndrome
Trends: Past

- Cocaine
- PCP
- Wet/Fry
- ‘synthetic marijuana’, ‘Kush’
- ETOH and Tobacco
Trends: Present

- Cocaine
- PCP
- Opioids especially fentanyl
- methamphetamine
- ETOH and Tobacco
Trends: Future

• Opioids
• Cocaine
• Benzos
• Cannabis

• ETOH and Tobacco
Shift to chronic disease focus

• Recovery coaches
• Integrated treatment within primary care esp AUD, OUD, TUD with MAT
• Integrated treatment within behavioral health care
• Integrated primary (and behavioral health) care treatment into traditional SUD treatment centers
Focus on the ‘legal stuff’- START HERE

**Tobacco**: Most family docs comfortable addressing tobacco

- Still the top ‘killer’ substance over the lifespan
- Tobacco use causes four times as many deaths as alcohol: more than **430,000 deaths** each year
- Impacts multiple chronic diseases and impairs tissue healing, increases surgical complication rates
- Second and third hand effects
- ‘Just’ TUD history (family/personal) raises risk of other SUD
- Sequential vs concomitant cessation: either ok
- MAT doubles quit attempt success rate: bupropion, NRP, varenicline
- E-cigs and vaping: ?intermediate risk? Can help with cessation but may facilitate youth initiation
- Single question to all tobacco users: want to quit in next 30 days?
Focus on the ‘legal stuff’ - BUILD OUT

**ETOH**: Most family docs less comfortable addressing, but more doing so, and medications readily prescribed

- Alcohol use is related to more than **105,000 deaths** every year in the US.
- 3 out 10 Americans drink at levels that elevate health risks (NSDUH, 2015); increasing rates of alcohol misuse especially in women
- Screen: how many times in the past year have you had 4/5 (F/M) or more drinks on one occasion?
- MAT for AUD: 3 FDA approved (acamprosate, disulfiram, naltrexone), 2 other meds off label with some efficacy data (gabapentin, topiramate)
- FAS/FASD are the number one preventable cause of birth defects and the leading cause of intellectual disabilities (Bailey and Sokol, 2008)
- ETOH is the most teratogenic substance of misuse (TOB is second)
- 45% of all pregnancies are unplanned (Finer and Zolna, 2016)
- Women who drink alcohol may not realize they are pregnant until significant exposure has occurred
- Most women when appropriately counseled will choose to BOTH effectively contracept AND cut down on risky drinking; either prevents AEP and FASD
Funding and Resources

• $27.4 million to Texas from US HHS for (largely) OUD treatment services 2017 with $28 million in 2018 and $40+ million on the way:
  • OAT: Bupe MAT & Methadone MAT (MMTP)
  • Naltrexone MAT
  • HEROES, COAP
• FRONTLINES (SAMHSA funding) with HFD/BCM/UTSA/HHD
• Private/public insurance, ‘Goldcard’, Self pay
• Buprenorphine MAT in Harris Health System
• State-funded detox:
  • Cenikor, Santa Maria Hostel, Right Step
• Houston Recovery Center aka Sobering Center
Houston Comprehensive Opioid Abuse Program: HPD, HFD, Houston Recovery Center, UTHSC
Most Urgent Treatment Gap

• MAT for OUD especially with buprenorphine and for uninsured patients
• YOU can make a difference
  • Become ‘WAIVERED’
    • 4 hour in person, 4 hour online course (FREE)
    • Apply to DEA and receive super cool ‘X’ number
Houston is a Hub

Large quantities of narcotics come from the southern border area to Houston for transit to other areas nationwide.

**Heroin**
Methamphetamines
Cocaine
Marijuana
Synthetics (Opioids, Kush, Bath Salts)

Drugs in Houston are cheap (compared to the rest of the country)
Houston has not experienced the tremendous number of heroin OD cases like in the northeastern states, but we have counterfeit prescription pills made with **fentanyl** (and everything else).
We are also flooded with diverted (but genuine) pharmaceutical pills.
We are see powdered **fentanyl** sold as heroin.
Houston had more deaths in 2016 due to overdose than 21 STATES
Where do we find fentanyl
Fentanyl....the game changer

- January 2017 HPD Narcotics Seized 1 kilo of fentanyl
- May 2017 Pasadena PD Narcotics seized 8 kilos
- July 2017 HPD Narcotics seized 3 kilos
- July 2017 HPD Narcotics seized 13 kilos

First time fentanyl really came on HPD radar:

December 22, 2015

Patrol officer asked for assistance from narcotics with a Hit and Run investigation.

- 10 grams of butyryl fentanyl (25,000 doses)
- 27 grams 25I-NBOMe (680 doses synthetic LSD)
- 1759 grams of alprazolam (7500 doses of Xanax)
- 1 stolen pistol, 1 machine gun, 2 warrants
2017 Fatal Overdoses in Harris County

- 252 Cocaine
- 147 Heroin
- 110 Methamphetamines
- 59 Fentanyl analogs
- 33 Methadone (3 no other drugs present)
- 23 Alcohol (with no drugs present)
- 29 PCP (10 with no other drugs present)
- 14 Tramadol
- 13 Promethazine
- 7 Freon/propellant (R-152a, also used in “canned air”)
- 6 Synthetic cannabinoids “Kush” (5 no drugs/alcohol present)
- 5 U-47700
- 4 Diphenhydramine (no other drugs/alcohol present)
- 3 Buprenorphine
- 3 acetaminophen (no other drugs/alcohol present)

Half of deaths due to overdose involve 2 or more drugs
## Fatal Overdoses in Harris County

<table>
<thead>
<tr>
<th></th>
<th>2013</th>
<th>2014</th>
<th>2015</th>
<th>2016</th>
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<tbody>
<tr>
<td>Heroin</td>
<td>49</td>
<td>68</td>
<td>79</td>
<td>96</td>
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</tr>
<tr>
<td>Fentanyl</td>
<td>19</td>
<td>17</td>
<td>16</td>
<td>25</td>
<td>59</td>
</tr>
<tr>
<td>All opioids</td>
<td>234</td>
<td>236</td>
<td>255</td>
<td>270</td>
<td>303</td>
</tr>
<tr>
<td>Cocaine</td>
<td>143</td>
<td>128</td>
<td>170</td>
<td>237</td>
<td>250</td>
</tr>
</tbody>
</table>

Half of deaths due to overdose involve 2 or more drugs.
Multidrug toxicity is very common

- **2-2-17 (WF 48)** Drowning and combined toxic effects of ethanol, alprazolam, clonazepam, diazepam, temazepam, bupropion, methorphan, doxepin, fluoxetine, hydroxyzine, carisoprodol and oxycodone

- **2-19-17 (WF25)** Combined drug toxicities, including alpha-pyrrolidinopropiophenone (synthetic cathinone), clonazepam, lorazepam, cocaine, etizolam, methamphetamine, methylenedioxymethamphetamine, furanylfentanyl, para-fluorobutyrylfentanyl/para-fluoroisobutyrylfentanyl, flubromazepam, delorazepam, and diclazepam

- **10-16-17 (HM 33)** Combined alprazolam, cocaine, fentanyl, heroin, phencyclidine, methamphetamine, and tramadol toxicities
Fatal opioid OD’s January – June 2017
Fatal opioid OD’s July – December 2017
What we’re seeing in Houston

- powder (100 g)
- tablets with A215 logo
- tablets with GG249 logo
- crystalline powder (0.08 g)
- white powder (2 g)
- tablets with GG249 logo
- chunk substance/powder (40 g)
- tablets with V 4812 logo
- tablets with V 4812 logo
- tablets with V 3601 logo
- tablets with Percocet 10/325 logo
- tablets with smudged logo
- tablets with G3722 logo
- bottle with liquid
- tablets with WATSON 853 logo
- spoon with residue
- tablet with C230 logo
- tablets with R039 logo
- powder (0.60 g) ; syringe
- powder (0.34 g)
- powder (0.24 g)
- powder (0.62 g)
- tablets with C230 logo
- tablets with M30 logo
- powder (0.28 g)

- U-47700
- oxycodone
- alprazolam
- meth / fentanyl
- meth
- alprazolam
- heroin
- oxycodone
- oxycodone
- hydrocodone
- oxycodone
- oxycodone
- alprazolam
- heroin
- hydrocodone
- heroin
- oxycodone
- alprazolam
- fentanyl
- fentanyl
- heroin
- heroin
- heroin
- oxycodone
- mdma
- heroin

- U-47700
- Fentanyl
- Furanylfentanyl, U47700, U49900, MMB-CHMICA
- Carfentanil
- Furanyl fentanyl
- U-47700
- Heroin, fentanyl
- Fentanyl, U-47700
- Fentanyl, phenylfentanyl, U-47700
- U-47700
- Fentanyl, phenylfentanyl
- U-47700
- U-47700
- Heroin, fentanyl
- Fentanyl
- cocaine, heroin, fentanyl
- Methoxy PCP, alprazolam, methoxyacetyl fentanyl
- Methoxy PCP, alprazolam, methoxyacetyl fentanyl
- Heroin,fentanyl
- Fentanyl
- Fentanyl
- Fentanyl
- ANPP (fentanyl precursor)
- U-47700
- Fentanyl
- Fentanyl
Recovered counterfeit drugs
Typical illicit pill operation
Typical illicit pill operation
Whatever you want them to be

Hydrocodone
Assorted Rx drugs
Morphine or OxyContin
Mario
Hello Kitty
Xanex
What is popular In Houston?

GREAT QUESTION!

• Methamphetamines ("Ice" and liquid form)
• Marijuana
• Synthetic Cannabinoids ("Kush", "bath salts")
• Cocaine/Crack Cocaine
• Opioids (Heroin, Real/Fake Prescription Pills, Fentanyl)

Lots of people use many substances

(HIDTA 2018 Threat Assessment, 2018)
The Opioid Epidemic

- Overdose is THE leading cause of death for people under 50 in the US
- US overdose deaths in just 2016 (64K) exceeded:
  - total US casualties during the entire Vietnam War (58K)
  - AIDS-related deaths in 1995, worst year of AIDS crisis, (51K)
  - Peak year, 1991, of US homicides, (25K)
  - Suicides, rising for past 30 years (to 44K in 2015)
- For the first time in modern US history, life expectancy decreasing for younger generations, primarily driven by overdose deaths
- US overdose deaths in 2017 a record high of 72K
Death rate for U.S. non-Hispanic whites (USW), U.S. Hispanics and six comparison countries, aged 45-54.

(Source: Proceedings of the National Academy of Sciences.)
The Perinatal Opioid epidemic

• 1999: 1.5 in 1000 deliveries mother with OUD
• 2014: 6.5 in 1000 deliveries mother with OUD
• Overdose is now the leading cause of perinatal mortality for women
• Every 25 minutes another newborn is diagnosed with Neonatal Abstinence Syndrome (NAS)

2017 National Survey on Drug Use and Health (NSDUH):
  • Past Month Opioid Misuse in Women 15-44yo:
    • Pregnant: 1.2% 2016 INCREASED to 1.4% 2017
    • Non pregnant: 1.7% 2016 decreased to 1.6% 2017
FIGURE 2. Rates* of opioid pain reliever (OPR) overdose death, OPR treatment admissions, and kilograms of OPR sold --- United States, 1999--2010
Overdose Deaths Involving Opioids, by Type of Opioid, United States, 2000-2015

- Any Opioid
- Heroin
- Natural & Semi-Synthetic Opioids
- Other Synthetic Opioids (e.g., fentanyl, tramadol)
- Methadone

decreased opioid RX is NOT Enough
The Synthetics

• Heroin: 2 MEQ

• U-47000 aka ‘Pink’: 10 MEQ

• Fentanyl: 100 MEQ lethal dose 2mg

• Carfentanyl: 100,000 MEQ lethal dose 20 micrograms

• [$1000 pill press (5K pills/hr) + $250 die molds for oxycontin and xanax + $100 fentanyl 25gm + $900 other chemicals = $2250] >>> [1mg fentanyl per pill = 25K pills at $10 per pill = $250,000]
SUDs & Families

The effects of family SUDs on children

Live with $\geq$ one adult with a SUD

Exposed to alcohol problems in families
CDC Guidelines 2016

• Non pharmacologic therapies and non opioid pharmacologic therapies preferred
• Risk assessment tools not so helpful: risky drugs not (just) risky patients
• 50mg ME+ = high dose, avoid 90mg ME+
• Opioids for acute pain: 3 days typically sufficient

• 52 pages: READ PAGE 16
VA/DOD Guidelines 2017

- Avoid long-term opioid therapy to treat chronic pain...
- ...esp if: untreated SUD, concurrent benzo use, age < 30 yo
- No ‘safe’ dose
- Routine suicide risk assessment at initiation and ongoing
- Avoid 90mg ME+ dosing for chronic pain
- Offer OEND: overdose education and naloxone distribution
- MAT for patients with OUD and chronic pain

198 Page Full Report
30 Page Clinician Summary
7 Page ‘Pocket Card’
Managing acute pain to Prevent Progression to Chronic PAIN/OUD

• 3 to 7 days maximum needed opioid script for most acute, painful conditions

• 30 day script leads to increased disability and increased likelihood of ongoing opioid use at 6 months and beyond

• Acetaminophen and ibuprofen (both given orally) as efficacious as oral opioid analgesics (with or without acetaminophen) for acute orthopedic injury in the EC setting

Prescription Drug Monitoring

- State based, electronic databases
- Usability and access varies by state
- Some states share data (e.g., Louisiana and Texas)
- Limitations on who can access and need for patient consent to access coming?
- Need for national database
- Border state issues
- Mandatory in Texas with each controlled substance script by September 2019

- [https://texas.pmpaware.net/login](https://texas.pmpaware.net/login)
Harm Reduction – Naloxone

$$$$$

• Ezvio
• Auto-injector SC or IM
• 0.4 mg dose
• Visual+voice instructions
• Press on outer thigh for 5 sec (over clothes ok)
• Compact (3 ½ x 2 x ½)
• Retractable needle

$$-$$$$

Naloxone (Narcan)
IM/SC or intranasal

Baylor College of Medicine
Opioid Use Disorder (OUD) Treatment:

- Methadone maintenance: licensed Opioid Treatment Program (OTP)
- Buprenorphine maintenance
- Agonist MAT = GOLD STANDARD TX OF OUD IN PREGNANCY
- Opiate antagonist: naltrexone
  - Decreased opioid use; decreased retention in treatment; suicide risk in early treatment (NIDA CTN X:BOT study)
- Detoxification
- Partial hospitalization/Residential/Intensive outpatient
- (Narcotics Anonymous/ Methadone Anonymous)

www.samhsa.gov – treatment locator
OUD MAT in Primary Care: HUB & SPOKE PARTNERSHIPS

**HUB = Addiction Specialist**
- Diagnose OUD
- Consent/Treatment contract
- Induction
- Stabilization
- Intensive patient and family/support system education
- Counseling/recovery support

**SPOKE = Primary Care Clinician**
- Screen and refer to HUB
- Continue MAT for stabilized patients
- Address primary care needs and SUD medical complications with patient
- Refer back to HUB if relapse
this is your brain on drugs.
Yellow shows places in brain where cocaine goes (Striatum). Front of brain vs. Back of brain.
The Pleasure-Reward Center
Case Questions

Q1. What aspects of this patients presentation (red flags) raise concern for SUD?

Q2. In a primary care setting what recommendations do you have for the management of pain in this patient both in the short term and the long term?

Q3. What would be the appropriate referrals for this patient?

Q4. In the Harris Health System what management options are available and are NOT available for patients with SUD?

Q5. What difficulties do patients face in access to SUD treatment in Harris County?
Houston Resources

• Council on Recovery Houston: treatment matching, IOP
  • www.councilonrecovery.org or (713)942-4100
• Harris County Youth Services: part of CPS, runaways, school programs
  • www.hc-ps.org or (713) 394-4000
• Memorial Hermann Prevention and Recovery Campus: comprehensive from detoxification through aftercare
  • www.mhparc.org or (713)939-7272
• Palmer Drug Abuse Program: free, 12 step, IOP, crisis intervention
  • www.pdap.com or (713)301-0516
• Teen and Family Services: sliding scale fee, IOP
  • www.teenandfamilyservices.org or (713)464-3950
“Addressing Addiction in America”

https://addiction.surgeongeneral.gov

- https://www.drugabuse.gov/
- https://www.samhsa.gov/
- http://prescribetoprevent.org/
- www.texasoverdosenaloxoneinitiative.com