

# Addiction Medicine 101

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# Objectives

- Define addiction, identify the diagnostic criteria for substance use disorders, and review U.S. prevalence data for substance use and addiction
- Identify screening tools and recommendations for drug and alcohol use in adolescents and adults
- Describe the components of outpatient Medication Assisted Treatment for opioid use disorder and identify the FDA approved medications used in treatment
- Describe the concept of harm reduction in substance use disorder treatment and strategies to manage referrals for, and access to, treatment

# Addiction is a Disease

## Definition of Addiction (ASAM, 2019):

Addiction is a treatable, chronic medical disease involving complex interactions among brain circuits, genetics, the environment, and an individual's life's experiences. Dysfunction in these circuits leads to characteristic biological, psychological, social and spiritual manifestations. This is reflected in an individual pathologically pursuing reward and/or relief by substance use and other behaviors.

Addiction is characterized by inability to consistently abstain, impairment in behavioral control, craving, diminished recognition of significant problems with one's behaviors and interpersonal relationships, and a dysfunctional emotional response. Like other chronic diseases, addiction often involves cycles of relapse and remission. Without treatment or engagement in recovery activities, addiction is progressive and can result in disability or premature death.

# Substance Use – By The Numbers

- 31.9m individuals 12 years and older used an illicit drug(s) in the past 30 days
- 9.9m individuals experienced the misuse of a prescription pain reliever in the past year
- 139.8m individuals use alcohol, 67.1m binge drink, and 16.6m are heavy drinkers
- 47.0m use cigarettes with 10.8m using one or more packs per day
- 20.3m individuals have a substance use disorder; only 11.1% needing care received specialty addiction treatment
- 45.6% of SUD patients 18 years and older suffer from a co-morbid mental illness; only 7.0% received care for both

# SUD Diagnosis

Validated screening and assessment tools help establish the potential for a SUD diagnosis and its severity. Diagnosis is established based upon DSM 5 Criteria:

- Drug of choice (DOC) often taken in larger amounts or over a longer period of time than was intended
- Persistent desire or unsuccessful efforts to cut down or control use
- Great deal of time spent in activities to obtain, use, or recover from DOC effects
- Craving or a strong desire to use DOC
- Recurrent DOC use resulting in failure to fulfill major obligations at work, school, home
- Continued DOC use despite persistent or recurrent social or interpersonal problems caused or exacerbated by the effects of DOC
- Important social, recreational, occupational activities given up/reduced due to DOC use
- Recurrent DOC use in situations in which it is physically hazardous
- DOC use continued despite knowledge of having a persistent or recurrent physical or psychological problem likely to have been caused or exacerbated by DOC
- Tolerance
- Withdrawal

# Selecting Screening Tools

- Screening can begin with a brief pre-screen
- A positive pre-screen indicates distress that should be further evaluated
- There are several evidence-based pre-screening tools; thus, it is possible to tailor the screening process to best meet the needs of the clinic and patient population
  - Alcohol Use Disorder Identification Test (AUDIT-C)
  - National Institute on Drug Abuse (NIDA) Quick Screen

# Pre-screening

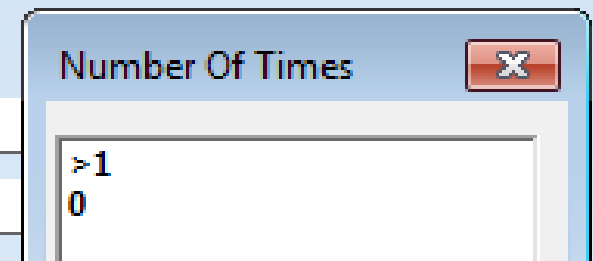
- National Institute on Drug Abuse (NIDA) Quick Screen

The NIDA Quick Screen assesses frequency of alcohol, tobacco, prescription and illegal drug use in the past year. If the patient answers “never” for all drugs, the screening is considered negative. Any answer other than “never” indicates a positive screen and the need for additional assessment.

## Substance use Screening

How many times in the past year have you had 4 or more drinks in one day?

How many times in the past year have you used marijuana, other drugs, or a prescription medication for non-medical reasons?



Number Of Times ✕

>1  
0

# Selecting a Screening Tool

- Most will generate negative pre-screens. Patients with a positive pre-screen need additional assessment to help guide intervention and treatment planning.
- There are numerous evidence-based screening tools.
  - Alcohol, Smoking, and Substance Involvement Screening Test (ASSIST)
  - Alcohol Use Disorders Identification Test (AUDIT)
  - CAGE-AID
  - Drug Abuse Screening Test (DAST-10)
  - Michigan Alcoholism Screening Test (MAST)



# Screening

- The CAGE-AID

The CAGE-AID is an expanded version of the CAGE screener that assesses both alcohol and drug misuse. CAGE is an acronym for key words in the four questions (Cut Down, Annoyed, Guilty, Eye-Opener) and AID indicates it is Adapted to Include Drugs. Each “yes” response earns one point. One point indicates a possible problem, whereas two points indicates probable substance misuse.

## CAGE-AID

- |                           |                          |   |
|---------------------------|--------------------------|---|
| <input type="radio"/> Yes | <input type="radio"/> No | 1. Have you felt you ought to cut down on your drinking or drug use?  |
| <input type="radio"/> Yes | <input type="radio"/> No | 2. Have people annoyed you by criticizing your drinking or drug use?  |
| <input type="radio"/> Yes | <input type="radio"/> No | 3. Have you felt bad or guilty about your drinking or drug use?   |
| <input type="radio"/> Yes | <input type="radio"/> No | 4. Have you ever had a drink or used drugs first thing in the morning to steady your nerves or to get rid of a hangover (eye-opener)? |

*If any questions are answered "Yes", the screen is positive, refer to a BHC.*

# Screening - Adolescents

The most widely used screening tool for adolescents, endorsed by the AAP, is the CRAFFT:

- Have you ever ridden in a **C**ar driven by someone (including yourself) who was high or had been using alcohol or drugs?
- Do you ever use alcohol or drugs to **R**elax, feel better about yourself, or fit in?
- Do you ever use alcohol or drugs while you are by yourself **A**lone?
- Do you ever **F**orget things you did while using alcohol or drugs?
- Do your **F**amily or friends ever tell you that you should cut down on your drinking or drug use?
- Have you ever gotten into **T**rouble while you were using alcohol or drugs?

2 or more “yes” answers is a positive screen and should be investigated further. 92% sensitivity, 64% specificity.

# Access to Care

- Essential to minimize barriers to engagement to care
- Walk-in Intake Clinic
  - Team of Staff-- BHCs, Therapists, Community Health Coordinators, and Peer Support Specialist
  - Present continuum of A&D treatment options
- Triage for high priority patients
  - Pregnant women
  - Recent overdose(s)
  - Recent hospitalization for drug-related medical or psychiatric condition
  - Discharging from detox/inpatient A&D facilities
  - Patient's partners/family likely to impact a current patient's recovery

# Medication Assisted Treatment

- Combination of behavioral therapies and medication as part of a patient's treatment plan
- Provides a patient centered and holistic approach to care
- In an integrated care setting, allows treatment of mental health disorders and primary care services

# Withdrawal Management

- Triage the potential substances, then assess for risk.
- Use a validated assessment tool if one exists – e.g., COWS, CIWA-Ar, CIWA-B
- Consider co-morbid medical, psychiatric, and psychosocial conditions – risk of withdrawal as well as risk of treatment

# Withdrawal Management - Alcohol

- Mild to moderate withdrawal can usually be managed as an outpatient (based on CIWA-Ar score)
- Severe withdrawal and/or significant co-morbidities should be referred for medically managed withdrawal (inpatient detox)
- Most common method is a benzodiazepine taper using either chlordiazepoxide, diazepam, or lorazepam on a 3-5 day schedule with frequent medical and behavioral follow-up
- Sometimes the treatment is the drug itself – some patients may only consider a self-taper of alcohol consumption
- Withdrawal should never be the endstate – long term sobriety is achieved with continuity of care following acute withdrawal management

Muncie HL, Yasinian Y, Oge L. Outpatient Management of Alcohol Withdrawal Syndrome. *Am Fam Phys.* 2013;88(9):589-595.

# Withdrawal Management - Opioids

- Use a withdrawal scale like COWS to assess
- Most opioid withdrawal may be managed as an outpatient, with consideration of medical and psychiatric co-morbidities
- Medication options include:
  - Opioid Agonists: Methadone (only in an OTP) and Buprenorphine, usually a brief taper when used for withdrawal management vs. maintenance therapy
  - Symptomatic Medications: used alone or with opioid agonist; includes antiemetic, antidiarrheals, alpha-adrenergic agonist (newly approved Lucemyra (lofexidine) and off-label clonidine); some off-label use of anticonvulsants
- Have a strategy for continued care following acute withdrawal

Kampman, et al. The ASAM National Practice Guideline For the Use of Medications in the Treatment of Addiction Involving Opioid Use. *American Society of Addiction Medicine*. June 1, 2015.

# Withdrawal Management - Others

- Benzodiazepines: may use the CIWA-B for assessment but not frequently used; outpatient management typically consists of long-duration taper of same or longer-acting benzo; be alert to “rebound” symptoms, especially with abrupt cessation; consider concomitant management of pre-benzo condition
- Stimulants: cocaine, methamphetamine; no clear treatment options. Typically include extreme fatigue, irritability, depression; manage symptoms medically and behaviorally.
- Marijuana: medical and behavioral treatment of symptoms; no defined withdrawal syndrome but often includes anxiety, insomnia, anorexia, GI complaints

Ogbonna CI, Lembke A. Taper Patients Off of Benzodiazepines. *Am Fam Physician*. 2017;96(9):606-608.

Bonnet U, Preuss UW. The cannabis withdrawal syndrome: current insight. *Subst Abuse Rehabil*. 2017;8:9-37.



# Addiction Medication Therapies

## Opioid Use Disorder

- Methadone – not a federally licensed clinic but local resources available
- Naltrexone/Vivitrol – available orally (daily dosing) and intramuscular (monthly dosing); payment challenges with IM form if uninsured (approved by TennCare, most commercial insurances and assistance available via patient assistance programs)
- Buprenorphine – available orally as film or tablet and with/without naloxone for daily dosing; once monthly injectable (Sublocade); some limitations in state of Tennessee for Nurse Practitioner prescribing – laws vary state to state; state grant for uninsured; can be used in pregnancy as mono-product; anti-diversion strategies critical

## Alcohol Use Disorder

- Acamprosate – orally only, three times per day, limited utility
- Disulfiram – available orally, daily dosing, expensive for uninsured compared to naltrexone
- Naltrexone – as above, frequent use with primary diagnosis of AUD with/without concomitant OUD

# Buprenorphine - OUD

- Opioid agonist - Approved by FDA in OCT 2002 for use in OBOT by physicians with additional training and authorized by the DEA (“X” number)
- High affinity partial mu opioid receptor agonist
- Most common side effects: nausea, dizziness, constipation, sedation, insomnia
- Metabolized by the liver; active metabolite and high affinity give some flexibility with dosing; no concerns with prolonged QTc
  
- Used as a component of opioid-abstinence treatment program
- Requires induction with patient in mild-moderate withdrawal (avoid precipitated withdrawal); follow-up visits variable based upon treatment progress
  
- Starting dose of 2-4mg, increase by 2mg every 2-4 hours until symptoms resolved
- Typical first day dose of 8mg, typical maintenance dose 16-24mg per day
- Discontinuation usually done by slow taper over several months
- Available orally as tablet or film, with/without naloxone; also comes as 6-month implant and new monthly injection

# Naltrexone - OUD

- Opioid receptor antagonist, hepatic metabolism, most common side effects include nausea, headache, and injection site redness/pain
- Increased risk of overdose death when resuming opioid use after discontinuation of antagonist treatment
- Used as part of abstinence-based opioid treatment program
- Formulation based upon patient/provider preference and compliance expectations
- Follow-up frequency depends upon treatment progress
- Available orally and as IM injection
- Starting oral dose is 25mg on Day 1-2 and then 50mg/day; may also give three times per week at doses of 100mg, 100mg, and 150mg (issues of compliance)
- Injectable dose is 380mg IM once per month after oral trial
- Does not require induction but consider naloxone challenge
- Patient must be opioid-free for 5-10 days prior to initiation

# MAT for OUD & Pregnancy

- Opioid agonist: dependent pregnant women should be offered MAT rather than withdrawal management or abstinence, as early as possible in the pregnancy
- Consider in-patient initiation of treatment for methadone or buprenorphine, especially in 3<sup>rd</sup> trimester
- Buprenorphine induction/dosing is similar to non-pregnant patient; dosing adjustment not usually needed as it is with methadone; no need to discontinue med at delivery/c-section.
- Buprenorphine used as mono-product, not FDA approved with naloxone
- Literature supports that treatment with buprenorphine results in decreased neonatal abstinence syndrome (NAS) intensity and decrease in newborn hospital stay compared to treatment with methadone (Meyer MC, et al. *J Addict Med*, Vol 9, No 2, Mar/Apr 15)
- Breastfeeding is encouraged with either methadone or buprenorphine
  
- Opioid antagonist: Naltrexone is pregnancy category C, may be informed decision between patient and provider; animal studies and human case review – no teratogenic effects, long term effects on humans unknown; improved neonatal outcomes vs methadone and buprenorphine; not recommended in breastfeeding

# Psychosocial Supports

# Psychosocial Interventions in Conjunction with Medications

- Recommended with any pharmacological treatment – at a minimum should include assessment of psychosocial needs, supportive counseling, links to existing family and community services
- Best practice
  - A variety of structured psychosocial interventions available based on patient population needs
  - May include but not limited to various forms of counseling & psychotherapy, assistance with social needs (e.g., housing, employment), and on-site treatment for comorbid psychiatric concerns
- Common elements – Intended to 1) modify the underlying processes that maintain addictive behavior, 2) treat psychiatric comorbidity that complicates recovery or triggers relapse, and 3) encourage engagement and adherence to pharmacotherapy when clinically indicated

WHO, 2009; Dugosh, 2016

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# Joining Forces

- Psychosocial Interventions are considered essential components to any comprehensive substance use disorder treatment plan
  - Research substantiates psychosocial interventions can promote behavior change for this population
  - Review of the literature indicates those exposed to psychosocial interventions have significantly better substance use outcomes (e.g., reduction in or abstinence from use, improvements in functioning across broad range of areas)
- WHO strongly recommends psychosocial support be offered routinely in association with MAT
  - MAT + Psychosocial Interventions are more effective than MAT or Psychosocial Interventions alone
- Receipt of *any* psychosocial treatment associated with lower mortality at 12 and 24 months in individuals with Opioid Use Disorder

# Individualized Treatment Planning

- Behavioral Health Intake Assessment
- Collaboration in development of Tx Plan tailored to meet individual's unique strengths, goals, values
- Continuum of Services
  - Individual Behavioral Interventions
  - Psychiatric Medication Management
  - Group therapy – EOP, IOP, Group Medical Visits
  - Peer Support
  - Case Management



# Trauma-Informed Care

- In clinical populations (focusing on either disorder), about 25-50% have dual diagnosis of PTSD and substance use disorder in their lifetime
  - This is associated with more severe clinical profile, lower functioning, poorer well-being, and poorer outcomes

# Common Targets of Intervention

- Psychoeducation About Addiction – Progressive nature, risk factors, many forms of recovery
- Dual Diagnosis – Addressing mental health concerns, PAWs, cross addiction
- Motivational Interviewing – Consequences of addiction, benefits of sobriety, stages of change
- Relapse Prevention Planning – Preventing and coping with cravings/triggers, relapse, improving your recovery environment
- Support Systems – Enabling, refusal planning, building healthy support, trust, recovery networks/12 Step programs
- Communication – Improving communication skills, being your own advocate
- Emotion Regulation
- Problem-Solving/Goal-Setting
- Values – Identifying values, realigning with values
- CBT – Challenging thinking that maintains use, improving recovery thinking
- Self-Care

# Harm Reduction

- Strategy to minimize health consequences of substance use
- Shown to reduce morbidity and mortality associated with use
- Path to recovery is not one straight line
- Keeps a patient engaged in care, provides opportunity for education of harm reduction strategies and links to community resources

# Medical Complications of Use

- Overdose and death
- Cardiopulmonary: endocarditis, pulmonary emboli & sepsis
- Hepatic: liver cirrhosis, hepatitis
- Infectious Disease: Hepatitis B&C, HIV, skin abscess, osteomyelitis, loss of limbs & increase in STI's: gonorrhea, chlamydia, and syphilis

# Harm Reduction Strategies

- Medication: Methadone, buprenorphine and naltrexone/Vivitrol
- Overdose prevention: Narcan kits & immediate medical care thereafter, Don't Use Alone Hotline, and Fentanyl testing kits
- Manner of use: education on using in the least riskiest manner
- Skin care and don't share: education on cleansing injections sites and using clean syringes and equipment, education on avoiding sharing any using devices or injection equipment
- Community resources: local harm reductions coalitions – Narcan, syringe exchange programs, and support and counsel available for treatment centers

# Treatment Goals – Defining Success

- How to define success in addiction treatment:
  - Negative urine drug screens
  - Reports no use
  - Stops using IV
  - Shows up for appointments
  - Decreased ER visits due to complications from use
  - Engagement in other medical care: mental health services and primary care
  - Doesn't OD
  - Stabilized at current level of care and no longer needs inpatient care
  - Gains employment, obtains housing, regains custody of kids
- Bottom line is **HARM REDUCTION**, success may look like any/all of the above

# Lessons Learned

- Rapid, imperfect implementation is okay. Patients always point the way.
- Complexity is the norm. All conditions are primary and require concurrent treatment.
- Rapid access, depth and breadth of services, continuity of care, and high level care coordination and communication are essential.
- This is a marathon, not a sprint.
- Practical barriers and resource needs complicate the path to recovery. Enhanced community-based outreach and support are needed.
- Everyone's path to sobriety and recovery does not look the same.

# QUESTIONS and DISCUSSION