Striking While the Iron is Hot: When, Where, and How to Initiate Substance Use Disorder Treatment

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Mercy John V. King Symposium

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I have no financial disclosures or conflicts to report.

I will not be promoting any off-label use of medications.

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- Director, Community Medicine
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Clinical Practice includes Addiction Medicine, Correctional Health Care, Homeless Health Care, and Community Health Centers

Current partners: ARCA, MO's STR Team, ARCHway Institute, Alive and Well Communities, RHC, IHN, and BHN

Objective

As a result of today's discussion, participants will be able to

- Discuss trends in SUD nationally, regionally, and locally
- Create safe and effective treatment plans for AUD and OUD
- Identify resources for consults and mentoring to develop skills in SUD treatment

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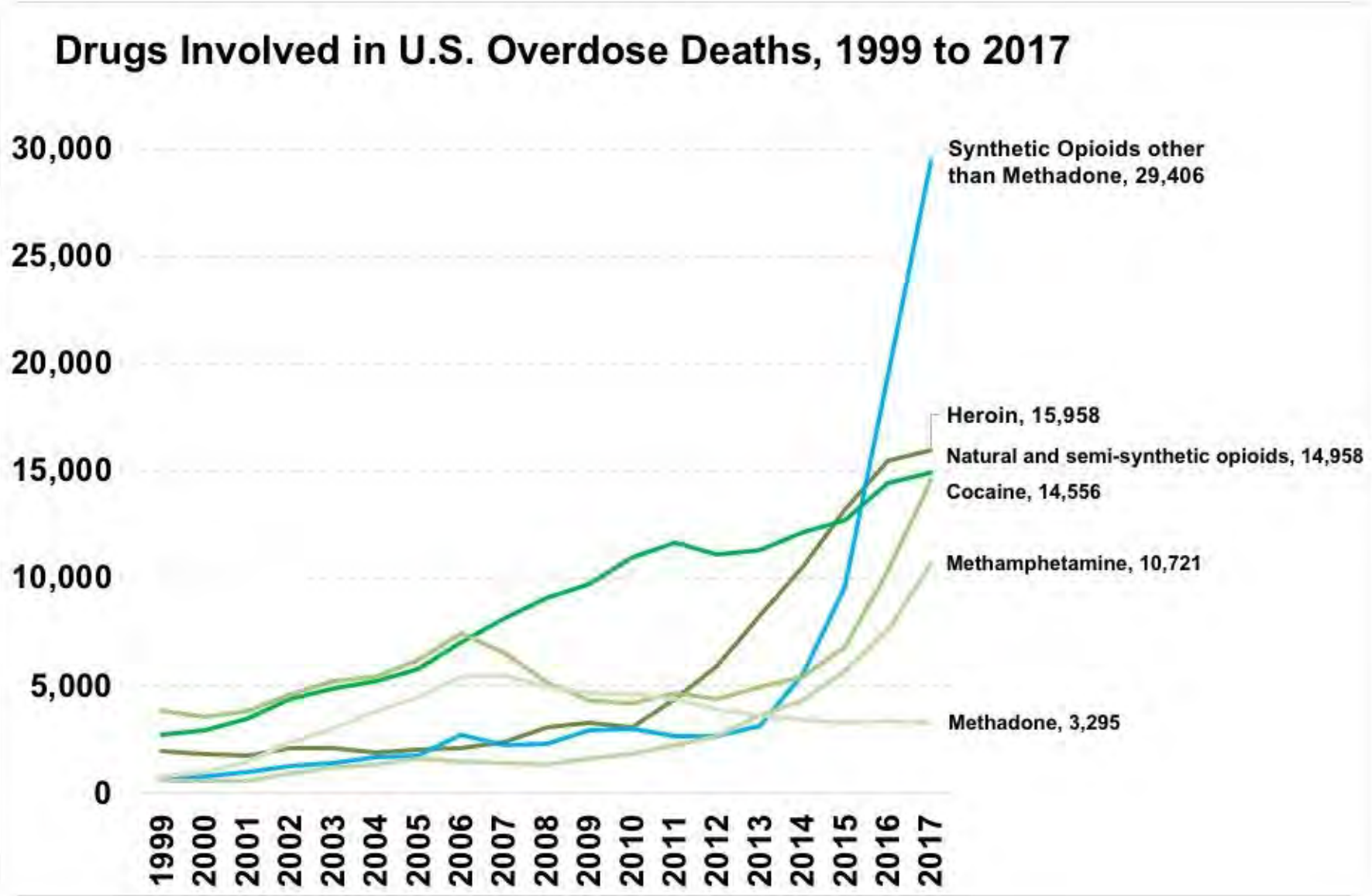
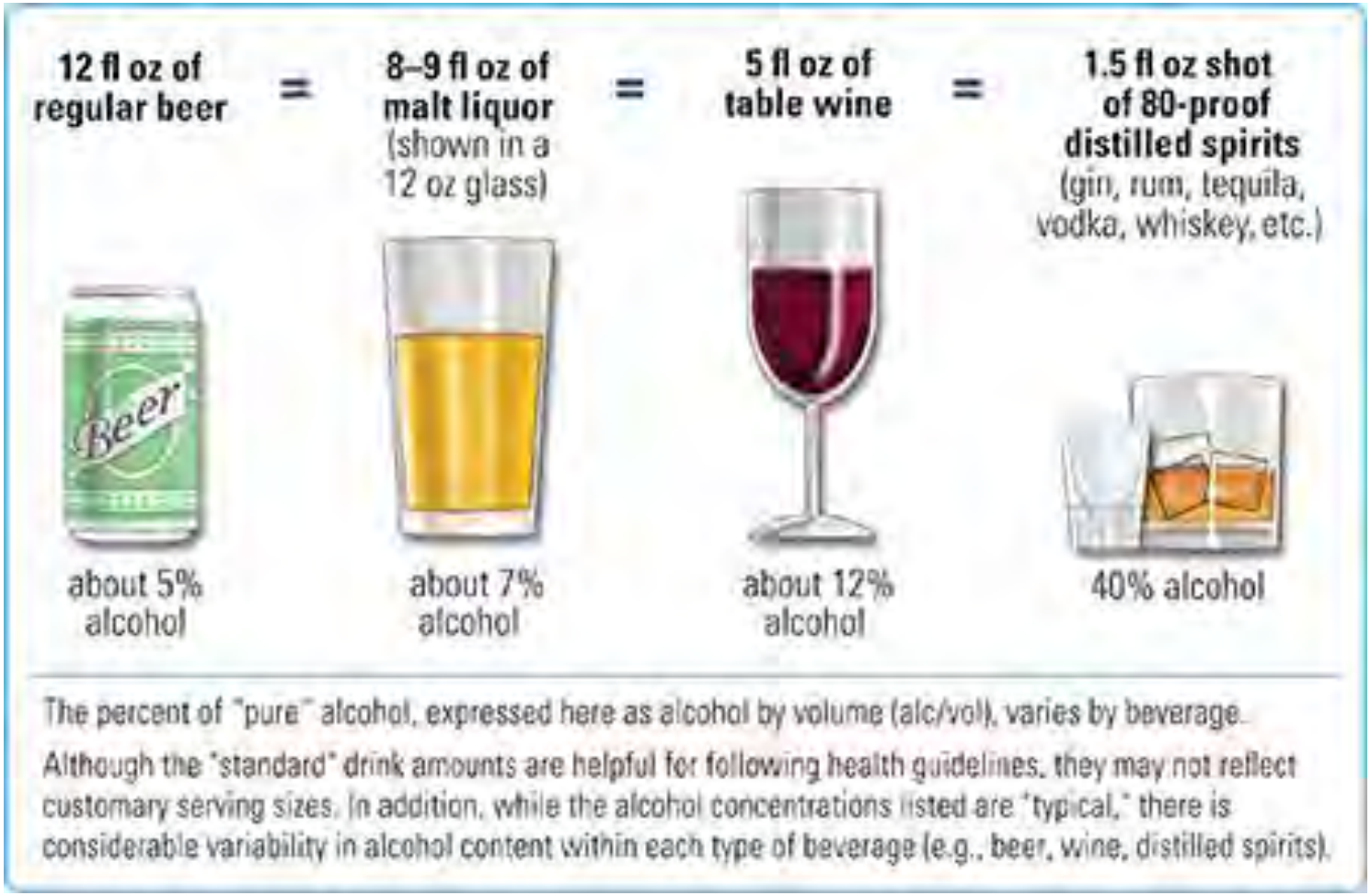

Drugs Involved in U.S. Overdose Deaths, 1999 to 2017
30,000
25,000
20,000
15,000
10,000
5,000
0
1999
2000
2001
2002
2003
2004
2005
2006
2007
2008
2009
2010
2011
2012
2013
2014
2015
2016
2017
Synthetic Opioids other than Methadone, 29,406
Heroin, 15,958
Natural and semi-synthetic opioids, 14,958
Cocaine, 14,556
Methamphetamine, 10,721
Methadone, 3,295

Alcohol-Related Deaths

- An estimated 88,000 people (approximately 62,000 men and 26,000 women) in 2016
- Causes of death
  1. Tobacco
  2. Poor diet
  3. Alcohol
- In 2014, alcohol-impaired driving fatalities accounted for 9,967 deaths (31 percent of overall driving fatalities)
  - https://www.niaaa.nih.gov/alcohol-health/overview-alcohol-consumption/alcohol-facts-and-statistics

Common Definitions



Definition (BAL)

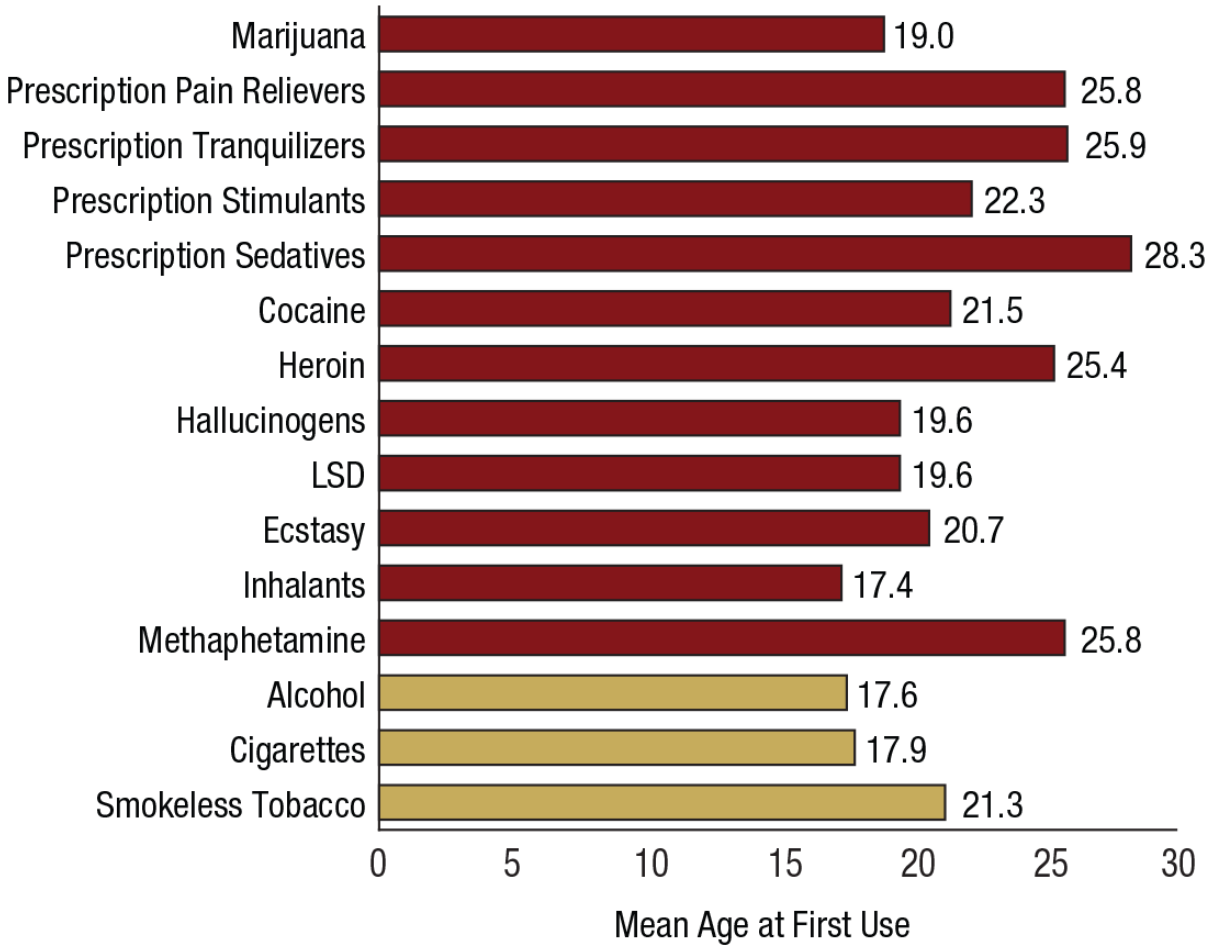
Men

Drinks	Approximate Blood Alcohol Content (BAC) Percentage — Body Weight in Pounds								
	100	120	140	160	180	200	220	240	
0	.00	.00	.00	.00	.00	.00	.00	.00	**Only Safe Driving Limit**
1	.04	.03	.03	.02	.02	.02	.02	.02	Impairment Begins
2	.08	.06	.05	.05	.04	.04	.03	.03	Driving Skills Affected
3	.11	.09	.08	.07	.06	.06	.05	.05	
4	.15	.12	.11	.09	.08	.08	.07	.06	Possible Criminal Penalties
5	.19	.16	.13	.12	.11	.09	.09	.08	
6	.23	.19	.16	.14	.13	.11	.10	.09	
7	.26	.22	.19	.16	.15	.13	.12	.11	Legally Intoxicated
8	.30	.25	.21	.19	.17	.15	.14	.13	
9	.34	.28	.24	.21	.19	.17	.15	.14	Criminal Penalties
10	.38	.31	.27	.23	.21	.19	.17	.16	

Women

Drinks	Approximate Blood Alcohol Content (BAC) Percentage — Body Weight in Pounds								
	90	100	120	140	160	180	200	220	
0	.00	.00	.00	.00	.00	.00	.00	.00	**Only Safe Driving Limit**
1	.05	.05	.04	.03	.03	.03	.02	.02	Impairment Begins
2	.10	.09	.08	.07	.06	.05	.05	.04	Driving Skills Affected
3	.15	.14	.11	.10	.09	.08	.07	.06	
4	.20	.18	.15	.13	.11	.10	.09	.08	Possible Criminal Penalties
5	.25	.23	.19	.16	.14	.13	.11	.10	
6	.30	.27	.23	.19	.17	.15	.14	.12	
7	.35	.32	.27	.23	20	.18	.16	.14	Legally Intoxicated
8	.40	.36	.30	.26	.23	.20	.18	.17	
9	.45	.41	.34	.29	.26	.23	.20	.19	Criminal Penalties
10	.51	.45	.38	.32	.28	.25	.23	.21	

NSDUH 2016


Marijuana
19.0
Prescription Pain Relievers
25.8
Prescription Tranquilizers
25.9
Prescription Stimulants
22.3
Prescription Sedatives
28.3
Cocaine
21.5
Heroin
25.4
Hallucinogens
19.6
LSD
19.6
Ecstasy
20.7
Inhalants
17.4
Methaphetamine
25.8
Alcohol
17.6
Cigarettes
17.9
Smokeless Tobacco
21.3
0
5
10
15
20
25
30
Mean Age at First Use

Definition (DSM-V)

- Cravings
- Using larger amounts or for longer time than intended
- Persistent desire or unsuccessful attempts to cut down or control use
- Great deal of time obtaining, using, or recovering
- Fail to fulfill major roles (work, school, home)
- Persistent social or interpersonal problems caused by substance use
- 11 Criteria
  - Mild: 2-3 symptoms
  - Moderate: 4-5 symptoms
  - Severe: 6 or more criteria

Screening Tools

AUDIT-C

Please circle the answer that is correct for you.

1. How often do you have a drink containing alcohol?					SCORE
Never (0)	Monthly or less (1)	Two to four times a month (2)	Two to three times per week (3)	Four or more times a week (4)	_____
2. How many drinks containing alcohol do you have on a typical day when you are drinking?					
1 or 2 (0)	3 or 4 (1)	5 or 6 (2)	7 to 9 (3)	10 or more (4)	_____
3. How often do you have six or more drinks on one occasion?					
Never (0)	Less than Monthly (1)	Monthly (2)	Two to three times per week (3)	Four or more times a week (4)	_____
TOTAL SCORE Add the number for each question to get your total score.					_____

Maximum score is 12. A score of ≥ 4 identifies 86% of men who report drinking above recommended levels or meets criteria for alcohol use disorders. A score of > 2 identifies 84% of women who report hazardous drinking or alcohol use disorders.

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Screening Tools: Adolescent

CRAFFT: Positive Screen, 2 or more

The CRAFFT Screening Interview

Begin: "I'm going to ask you a few questions that I ask all my patients. Please be honest. I will keep your answers confidential."

Part A

During the PAST 12 MONTHS, did you:	**No**	**Yes**
1. Drink any alcohol (more than a few sips)? (Do not count sips of alcohol taken during family or religious events.)	☐	☐
2. Smoke any marijuana or hashish?	☐	☐
3. Use anything else to get high? ("anything else" includes illegal drugs, over the counter and prescription drugs, and things that you sniff or "huff")	☐	☐

For clinic use only: Did the patient answer "yes" to any questions in Part A?

No ☐ → **Ask CAR question only, then stop**

Yes ☐ → **Ask all 6 CRAFFT questions**

Part B	**No**	**Yes**
1. Have you ever ridden in a **CAR** driven by someone (including yourself) who was "high" or had been using alcohol or drugs?	☐	☐
2. Do you ever use alcohol or drugs to **RELAX**, feel better about yourself, or fit in?	☐	☐
3. Do you ever use alcohol or drugs while you are by yourself, or **ALONE**?	☐	☐
4. Do you ever **FORGET** things you did while using alcohol or drugs?	☐	☐

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Determine Treatment Goals

- Initial goals of treatment of AUD (e.g., abstinence from alcohol use, reduction or moderation of alcohol use, other elements of harm reduction)
- Discuss risks to self (e.g., physical health, occupational functioning, legal involvement) and others (e.g., impaired driving) from continued use of alcohol
- Adjust initial goals based on factors such as treatment responses, history, family input, or education about treatment options and effects

Discuss Any Legal Obligations

- Some patients seek treatment due to court mandate
- Facilitates treatment planning and sets treatment expectations
- Documentation promotes accurate communication among those caring for the patient and serves as reminder of initial goals

Management of AUD: Acute

Inpatient or outpatient?

- Inpatient is always the safest option, but it may not always be an option (by patient choice or patient resources)
- Use available validated tools
- Have discussion, offer opinion, and document plan
- Inquire about safety measures, setting, people to support efforts

Prediction of Alcohol Withdrawal Severity Scale (PAWSS)

Maldonado et al, 2015

Part A: Threshold Criteria:

("Y" or "N", no point)

Have you consumed any amount of alcohol (i.e., been drinking) within the last 30 days? OR did the patient have a "+" BAL on admission? _____

IF the answer to either is YES, proceed with test:

Part B: Based on patient interview:

(1 point each)

1. Have you been recently intoxicated/drunk, within the last 30 days? _____
2. Have you ever undergone alcohol use disorder rehabilitation treatment or treatment for alcoholism? _____
   (i.e., in-patient or out-patient treatment programs or AA attendance)
3. Have you ever experienced any previous episodes of alcohol withdrawal, regardless of severity? _____
4. Have you ever experienced blackouts? _____
5. Have you ever experienced alcohol withdrawal seizures? _____
6. Have you ever experienced delirium tremens or DT's? _____
7. Have you combined alcohol with other "downers" like benzodiazepines or barbiturates, during the last 90 days? _____
8. Have you combined alcohol with any other substance of abuse, during the last 90 days? _____

Part C: Based on clinical evidence:

(1 point each)

9. Was the patient's blood alcohol level (BAL) on presentation ≥ 200? _____
10. Is there evidence of increased autonomic activity? _____
    (e.g., HR > 120 bpm, tremor, sweating, agitation, nausea)

Total Score: _____

Notes: Maximum score = 10. This instrument is intended as a SCREENING TOOL. The greater the number of positive findings, the higher the risk for the development of AWS.
A score of ≥ 4 suggests HIGH RISK for moderate to severe (complicated) AWS; prophylaxis and/or treatment may be indicated.

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Management of AUD Withdrawal

- Minor withdrawal symptoms - stage 1
  - 6-12 hours after stopping alcohol
  - tremors, insomnia, irritability, mild agitation, anorexia, nausea, vomiting, tension, anxiety, sweating, restlessness
- Alcoholic hallucinosis - stage 2
  - 12-24 hours after stopping alcohol
  - hallucinations (auditory, visual, or tactile) may occur
- Withdrawal seizures - stage 3
  - 24-48 hours after stopping alcohol, although may begin as early as 2 hours after stopping alcohol
  - usually tonic-clonic seizures
- Alcohol withdrawal delirium (delirium tremens) - stage 4
  - usually occurs 3-7 days after stopping alcohol but can occur at any time up to 14 days
  - hallucinations (usually visual), disorientation, tachycardia, hypertension, agitation, diaphoresis, low-grade fever

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Management of Acute Alcohol Withdrawal, CIWA-Ar

Addiction Research Foundation

Clinical Institute Withdrawal Assessment for Alcohol, Revised (CIWA – Ar)

Patient: _____ Pulse or heart rate, take for 1 minute: _____

Date: _____ Time: _____ Blood Pressure: _____

Anxiety: Ask, "Do you feel nervous?" Observation: 0 No anxiety, at ease 1 Mildly anxious 2 3 4 Moderately anxious, or guarded, so anxiety is inferred 5 6 7 Equivalent to acute panic states, as seen in severe delirium or acute schizophrenic reactions	**Headache, Fullness in Head:** Ask, "Does your head feel different? Does it feel like there is a band around your head?" Do not rate dizziness or lightheadedness. Otherwise, rate severity. 0 Not present 1 Very mild 2 Mild 3 Moderate 4 Moderately severe 5 Severe 6 Very severe 7 Extremely severe
Agitation: Observation 0 Normal activity 1 Somewhat more than normal activity 2 3 4 Moderately fidgety and restless 5 6 7 Paces back and forth during most of the interview, or constantly thrashes about	**Orientation and Clouding of Sensorium:** Ask, "What day is this? Where are you? Who am I?" Observation: 0 Oriented and can do serial additions 1 Cannot do serial additions or is uncertain about date 2 Disoriented for date by no more than 2 calendar days 3 Disoriented for date by more than 2 calendar days 4 Disoriented for place and/or person

Total **CIWA – Ar** Score _____
(maximum possible score = 67)

Rater's Initials _____

Patients scoring less than 10 do not usually need additional medication for withdrawal.

Note: The CIWA – Ar is not copyrighted and may be used freely. Source: Sullivan JT, Sykora K, Schneiderman J, Naranjo CA & Sellers EM (1989) Assessment of alcohol withdrawal: The revised Clinical Institute Withdrawal Assessment for Alcohol scale (CIWA – Ar) British *Journal of Addiction 84:1353 – 1357*

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Management of AUD: Acute

Hospital-based

- Administer thiamine (Strong recommendation), folic acid, and consider giving a multivitamin to patients with alcohol withdrawal.
- Provide hydration, nutritional support, and electrolyte replacement as part of the supportive care.
- Consider treatment with a benzodiazepine if CIWA-Ar score > 8-10.
  - Regimen options in the inpatient setting include symptom-triggered dosing, fixed-tapering dosing, or a loading-dose regimen. The symptom-triggered dosing is generally preferred in institutions capable of close patient monitoring.

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Management of AUD: Acute

Home-based

- Management involves alleviating symptoms and correcting metabolic abnormalities.
- Consider outpatient treatment for patients with mild-to-moderate symptoms who are not at high risk for delirium tremens or withdrawal seizures.
- Strongly recommend that a patient have someone at home with them for the first 2-5 days
- Administer thiamine (Strong recommendation), folic acid, and consider giving a multivitamin to patients with alcohol withdrawal.
- Consider hydration, nutritional support, and electrolyte replacement as part of the supportive care.
- Consider treatment with a benzodiazepine if CIWA-Ar score > 8-10.
  - Regimen options in the outpatient setting include fixed schedule or symptom-triggered schedule.

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ARCA Alcohol detoxification protocol

- Naltrexone 50mg - Take 1/2 tablet the first day and then one tablet by mouth daily AFTER eating, #30
- Librium/ Chlordiazepoxide 25mg DO NOT drive on this medication. DO NOT drink on this medication:
  - Take 1 capsule every 6hrs for the first 2 days
  - Take 1 capsule every 8 hours for the next 2 days
  - Take 1 capsule every 12 hours for the next 2 days
  - Take 1 capsule every 24 Hours for the final 2 days (no routine refill)
- Folic Acid (Vitamin B9) - 1mg Take 1 tablet daily for 14 days (no routine refill)
- Thiamine (vitamin B1) - 100mg - Take 1 tablet daily for 14 days (no routine refill)
- Seizure prophylaxis: Choose one if client has had history of complicated alcohol withdrawal *(and cannot/will not be hospitalized)*
  - Tegretol/carbamazepine 200 orally two times daily for 7 days
  - Gabapentin 300 orally three times daily for 7 days

Labs and other monitoring

- Initial labs
  - CMP, CBC
  - Qualitative HCG (if female and at each visit if on AUD medications);
  - UDS (and at each visit)
- Follow up labs:
  - Routine labs and frequency if labs are within normal limits
    - CMP, CBC, qualitative HCG, UDS every three months if client is on naltrexone, for year 1
    - CMP, CBC, qualitative HCG, UDS every six months if client is on naltrexone, for year 2 and following
  - Routine labs and frequency if labs are not within normal limits.
    - CMP and CBC every month if client is asymptomatic and until each panel is within normal limits, or
    - Check with provider for frequency of labs

Management of AUD: Chronic

- Medications
  - Naltrexone:
    - Most effective; consider use for harm reduction
    - Daily oral dosing or depot
  - Acamprosate: TID dosing
  - Disulfuram: Unforgiving; total abstinence only
  - Family engagement to enhance adherence
- Non-pharmaceutical treatments

TREATMENT PLANNING

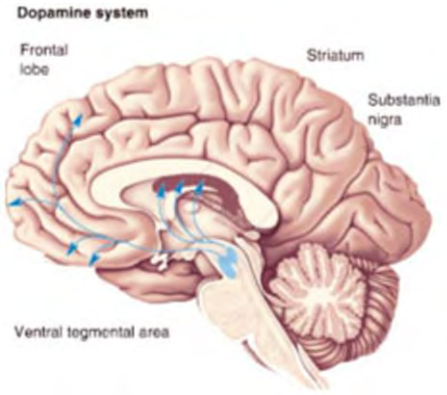
AMERICAN PSYCHIATRIC ASSOCIATION

There are several evidence-based options for non-pharmacological treatment that have minimal harms:

- Motivational Enhancement Therapy (MET): manualized psychotherapy based on the principles of motivational interviewing; shown to have a small to medium effect size on achieving abstinence
- Cognitive Behavioral Therapy (CBT): focusing on the relationships between thoughts, feelings, and behaviors; help manage urges and triggers
- Medical Management (MM): manualized treatment that provides education and strategies to support abstinence and promote medication adherence
- Community based peer support groups such as Alcoholics Anonymous (AA) and other 12-step programs: helpful in achieving long-term remission but not for replacing formal medical treatment

What Do OUD Medications Do?

- Medications help stabilize brain chemistry, reduces cravings and allow time for healing
- When patients are not obsessed with cravings, they can engage more fully in therapy and behavioral change
- Our brains are different, so the extent and process of healing differs
- This difference affects treatment choice



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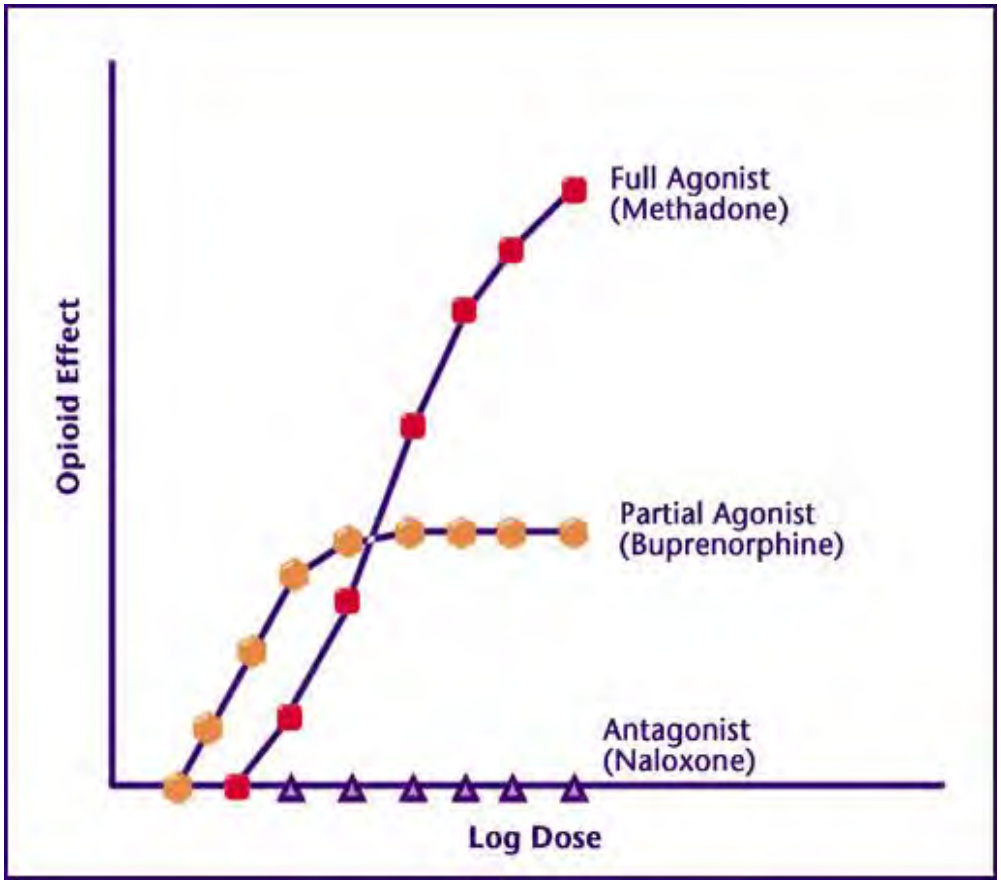
Opioid Effect
Full Agonist
(Methadone)
Partial Agonist
(Buprenorphine)
Antagonist
(Naloxone)
Log Dose

Opioid BUP Inductions

Hospital, Home, Office

- Hospital: Patients with high-risk pregnancies (and patient previously unsuccessful in settings below)
- Office: Patients with pregnancies, switching from methadone to BUP, with SMI, uncomfortable with home induction (and patient previously unsuccessful in settings below)
- Home: Almost everyone else

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ARCA Medication Guidelines

1. Agonist, antagonist, or agonist then antagonist—decide with your patient
2. Discuss long-term treatment goals
3. Frame and prepare for induction challenges
4. Maximize comfort medications and support of loved ones
5. Introduce team members and their roles

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Remember SUDs are Chronic Conditions

ASAM's short definition:

- Addiction is a primary, chronic disease of brain reward, motivation, memory and related circuitry. 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.

Case Study: Marie R. (1)

- 63-year-old female
- 10-year history of propoxyphene use for severe scoliosis
- AUD developed after propoxyphene pulled from market
- Marie is uncomfortable in drinking because it increases the arguments with her husband, and 2 of her three children are now physicians. They have expressed concern about her drinking. She's ready to stop and is interested in better pain management for her scoliosis.

Case Study: Marie R. (2)

- **HPI**
  - Currently drinks 3-4 scotches/rusty nails each evening, starting around 4 PM
  - Has only quit when she is unable to obtain scotch—switches to wine at those times
  - Has never quit for more than 4 days—during hospitalizations
  - Withdrawal symptoms include irritability and insomnia, no other problems noted
- **Allergies**
  - Sulfa and PCN-class: Anaphylaxis
- **PMHx**
  - Perimenopausal, non-metastatic breast cancer, dx'd age 50, 2 years tamoxifen use and then chose to stop treatment due to side effects (malaise)
  - Hypercholesterolemia, on simvastatin 20 mg
  - Scoliosis, no treatment, no interventions

Case Study: Marie R. (3)

- **Family Hx**
  - Depression and “drinking problems” run on both sides of her family
  - Mother has major depression entire life; father drank “a bucket of beer” every day
  - Both sons have MH problems—probably depression
- **Social Hx**
  - Retired from family business (hardware distributors) at age 60, currently working part-time as a book keeper for her parish school
  - Married for 49 years (marriage is “fine”); 3 children, ages 44 (female) and two males, 42 and 37—close to all three children
  - Very involved in parish; elderly mother and mother-in-law both in failing health

Case Study: Marie R. (4)

- Screens
  - DSM 5: 3 of 4 categories
  - AUDIT-C: At least 6 (positive if 2 or greater: women)
  - Cage: 3 of 4
- PE: Unremarkable (stable VS)
  - Articulate, well-groomed female, appears stated age
  - Pertinent positives include rosacea and mild Dupuytren's contractures bilaterally
- Diagnosis
- Plan?

Case Study: Marie R. (5)

- Naltrexone 50mg - Take 1/2 tablet the first day and then one tablet by mouth daily AFTER eating #30
- Librium/ Chlordiazepoxide 25mg, DO NOT drive on this medication. DO NOT drink on this medication:
  - Take 1 capsule every 6hrs for the first 2 days
  - Take 1 capsule every 8 hours for the next 2 days
  - Take 1 capsule every 12 hours for the next 2 days
  - Take 1 capsule every 24 Hours for the final 2 days (no routine refill)
- Folic Acid (Vitamin B9) - 1mg Take 1 tablet daily for 14 days (no routine refill)
- Thiamine (vitamin B1) - 100mg - Take 1 tablet daily for 14 days (no routine refill)
- ~~Seizure prophylaxis: Choose one if client has had history of complicated alcohol withdrawal~~
  - ~~Tegretol/carbamazepine 200 orally two times daily for 7 days~~
  - ~~Gabapentin 300 orally three times daily for 7 days~~

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Case Study: Marie R. (6)

Next Steps:

1. Physical health: Scoliosis—pain management; PT/OT evaluation?
2. Mental health
    1. Immediate concerns: CBT; Couples counseling
    2. Longer-term concerns: Screen for depression, anxiety, other SMI
3. SUD management: Naltrexone maintenance po or IM
    1. Monitor cravings
    2. Monitor coping mechanisms

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Resources (National)

- American College of Academic Addiction Medicine, https://www.acaam.org/
- American Psychiatric Association, https://www.psychiatry.org/
- American Society of Addiction Medicine, https://www.asam.org/
- Association of Medical Education and Research in Substance Abuse, https://amersa.org/
- PCSS, https://pcssnow.org/
- National Institute on Alcohol Abuse and Alcoholism, https://www.niaaa.nih.gov/
- SAMHSA, https://www.samhsa.gov/atod/alcohol

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Resources (Local/Regional)

- Assisted Recovery Centers of America (ARCA), http://www.arcamidwest.com/
- Missouri Department of Mental Health, https://dmh.mo.gov/alcohol-drug/help
- Missouri State Opioid Response Team, https://www.nomodeaths.org/
- SLU Addiction Medicine Fellowship, https://www.slu.edu/medicine/family-medicine/addiction-medicine.php
- SLU Center for SUD and Pain Management, https://www.slu.edu/medicine/family-medicine/center-for-substance-use.php

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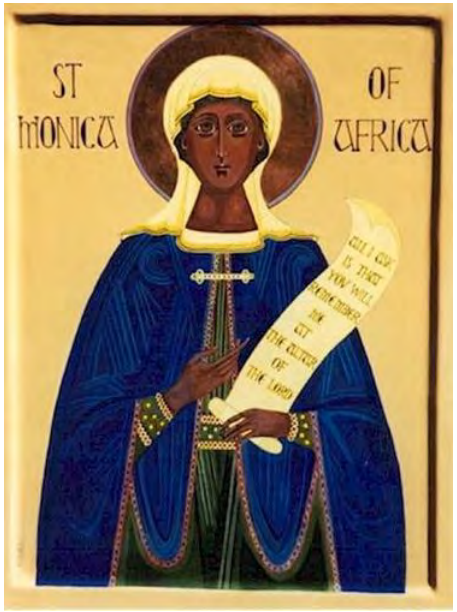
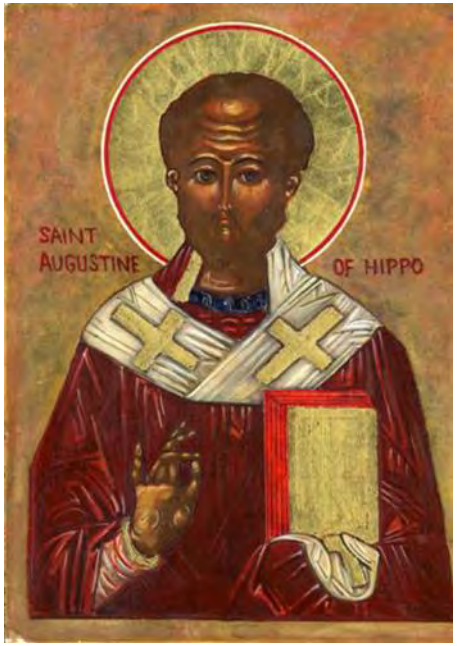
Questions





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