



**ONE DAY AT A TIME:
HELPING PATIENTS WITH
ALCOHOL USE DISORDER**

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LEARNING OBJECTIVES

- Review burden of alcohol use disorder and options for screening
- Explore outpatient and inpatient detox protocols and how to determine what is the appropriate level of care
- Identify medications used for assisting with maintenance of sobriety
- Understand harm reduction strategies

DISCLOSURES

- No relevant commercial relationships to disclose

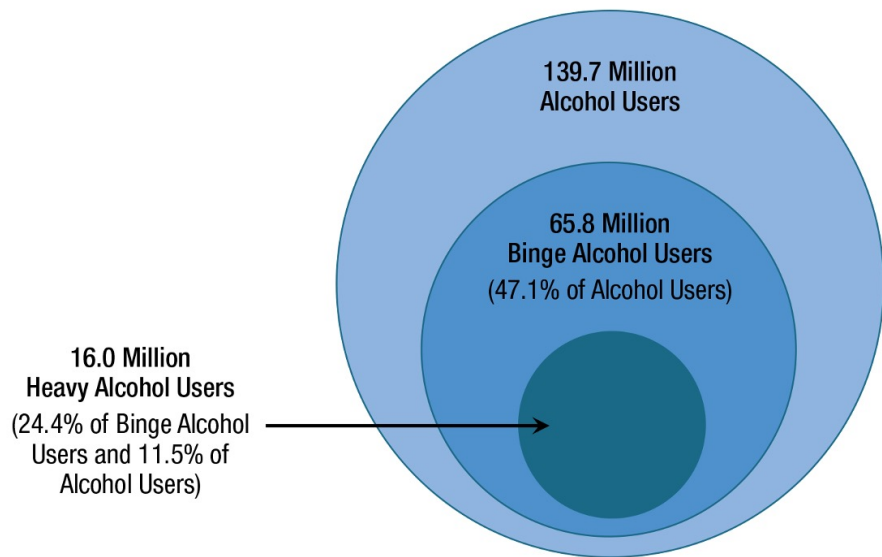
DESCRIPTION

Alcohol Use Disorder (AUD) remains a significant threat to health and wellness on a variety of levels. The COVID pandemic has created a perfect storm for addiction to explode with the problems of social isolation, impacts on job security, and increased barriers to care and support services, among other issues. This presentation will review evidenced based screening protocols, decision tools for determining appropriate levels of care, and options for medication management. The discussion will also include how to incorporate services into busy office and hospital based practices with a focus on harm reduction.

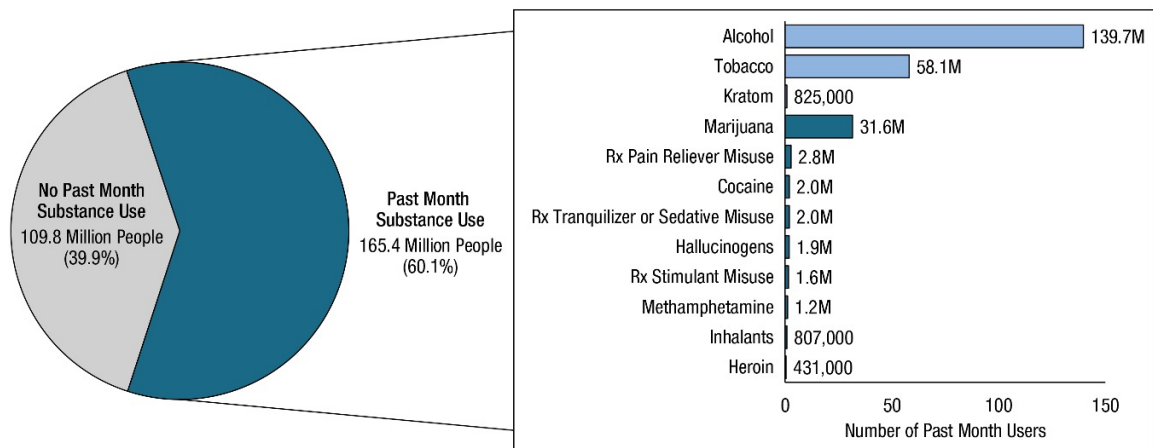
WHY CARE?

- Estimated that excessive alcohol consumption accounted for nearly 1 in 10 deaths and over 1 in 10 years of potential life lost among working-age adults in the United States (2006-2010)
 - 95,000 deaths/year, 261 deaths/day due to excessive ETOH use
- Study looked at 124.5 million ED and 33.6 million inpatient encounters from the 2017
 - 2.5mill ED visits related to ETOH
 - 1.6mill inpatient encounters related to ETOH
 - Estimated cost of nearly \$7.6 BILLION

Current, Binge, and Heavy Alcohol Use among People Aged 12 or Older: 2019



Past Month Substance Use among People Aged 12 or Older: 2019



Rx = prescription.

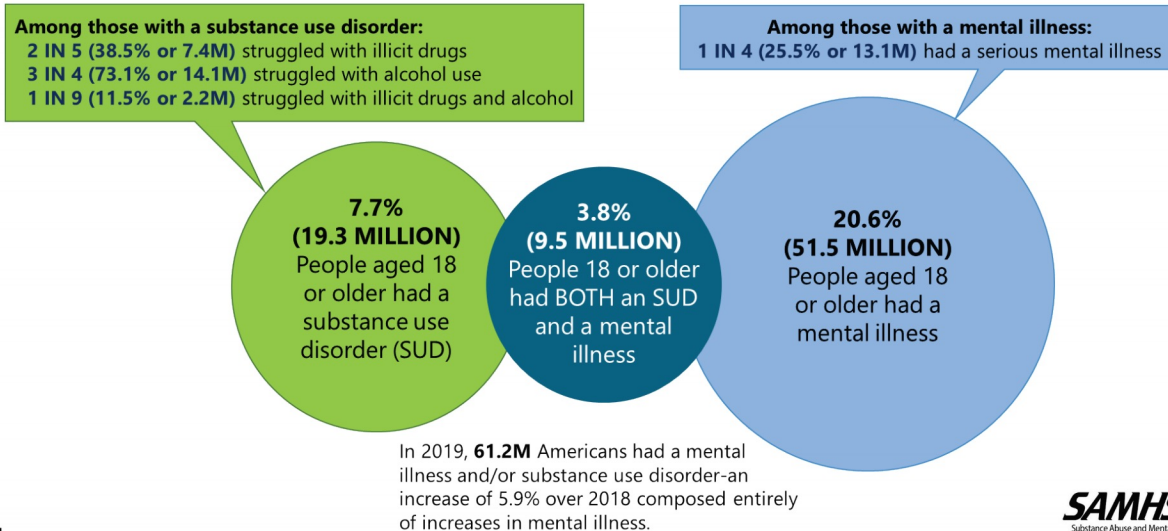
Note: Substance Use includes any illicit drug, kratom, alcohol, and tobacco use.

Note: The estimated numbers of current users of different substances are not mutually exclusive because people could have used more than one type of substance in the past month.



Mental Illness and Substance Use Disorders in America

PAST YEAR, 2019 NSDUH, 18+



PANDEMIC IMPACT

- Survey of nearly 2,000 adults in 2020
 - 34% of sample reported binge drinking
 - Binge drinkers increased alcohol consumption
 - Every one-week increase in lockdown resulted in 1.19 greater odds of binge drinking
- Different survey of over 800 adults surveyed one year apart
 - Increase in baseline use of alcohol
 - Increase in number of days of heavy drinking for women
 - Increase in report of problems related to alcohol use independent of level of consumption

RISKS OF ALCOHOL

- Cardiomyopathy, stroke, HTN, arrhythmias (esp. A fib)
- Liver disease
- Pancreatitis
- Drinking increases risk of cancer: oropharyngeal, esophageal, colorectal, liver and breast
- Increases risk of violence, both as victim and aggressor
- Increases risk of STD and HIV transmission
- Increased risk of death in combination with opioids/benzodiazepines

<https://www.cdc.gov/alcoholportal/>. <https://www.niaaa.nih.gov/alcohols-effects-health/alcohols-effects-body>

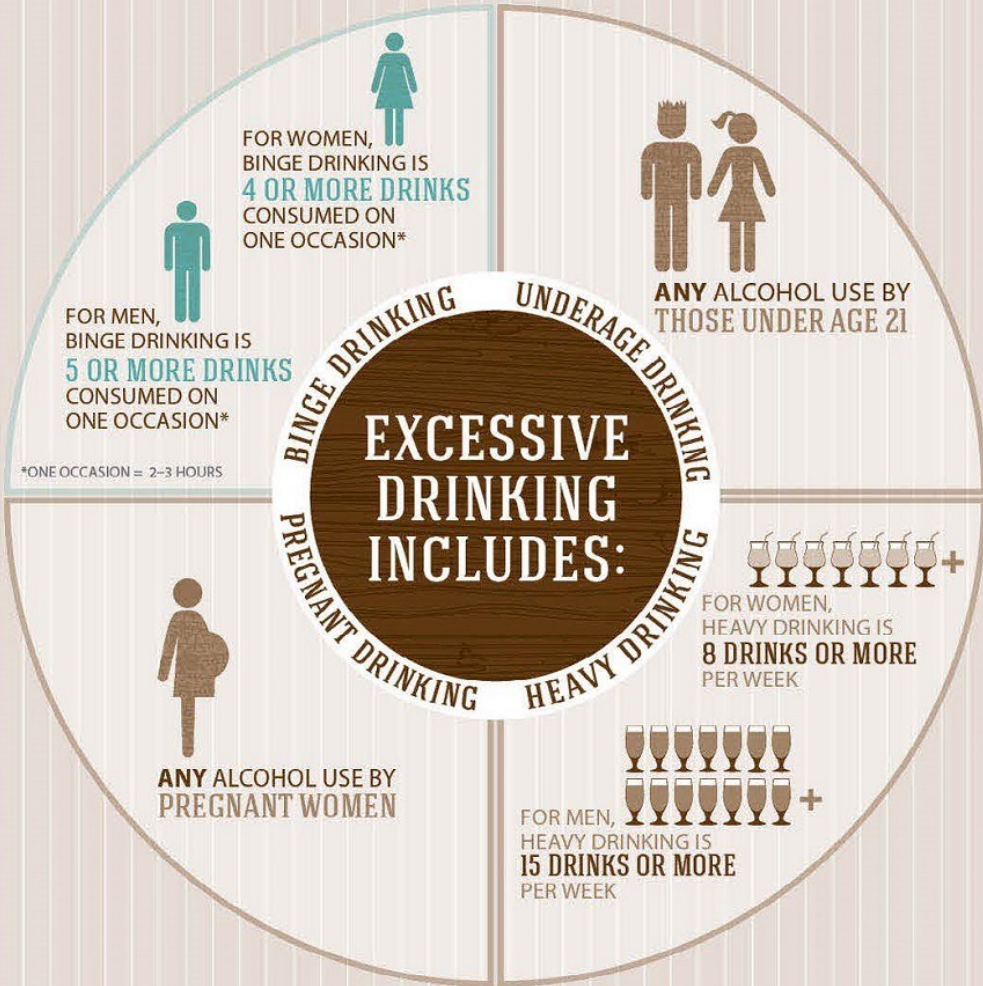
<https://pubmed.ncbi.nlm.nih.gov/33745953/>

DEFINITIONS

12 fl oz of regular beer = 8-9 fl oz of malt liquor (shown in a 12 oz glass) = 5 fl oz of table wine = 1.5 fl oz shot of 80-proof distilled spirits (gin, rum, tequila, vodka, whiskey, etc.)

about 5% alcohol about 7% alcohol about 12% alcohol 40% alcohol

The percent of "pure" alcohol, expressed here as alcohol by volume (alc/vol), varies by beverage. Although the "standard" drink amounts are helpful for following health guidelines, they may not reflect customary serving sizes. In addition, while the alcohol concentrations listed are "typical," there is considerable variability in alcohol content within each type of beverage (e.g., beer, wine, distilled spirits).



12 ounces
Beer

5 ounces
Wine

1 ounce
Liquor

What you've seen...
Not true or an original part of SOLO Cup design, but surprisingly accurate

- 40oz beer = 3.3 drinks
- Bottle of wine = 5-6 drinks
- Box of wine = 20-25 drinks
- A pint = 11 drinks
- A fifth = 17 drinks
- A handle = 39 drinks

CASE EXAMPLE

Brenda is brought by ambulance after a fall in her home. She states she missed a step and fell and couldn't get back up. She is not altered and reports she had a glass of wine in the evening before falling. ED work up shows a right intertrochanteric fracture.

What is the benefit of screening for alcohol use?

BENEFIT OF SCREENING

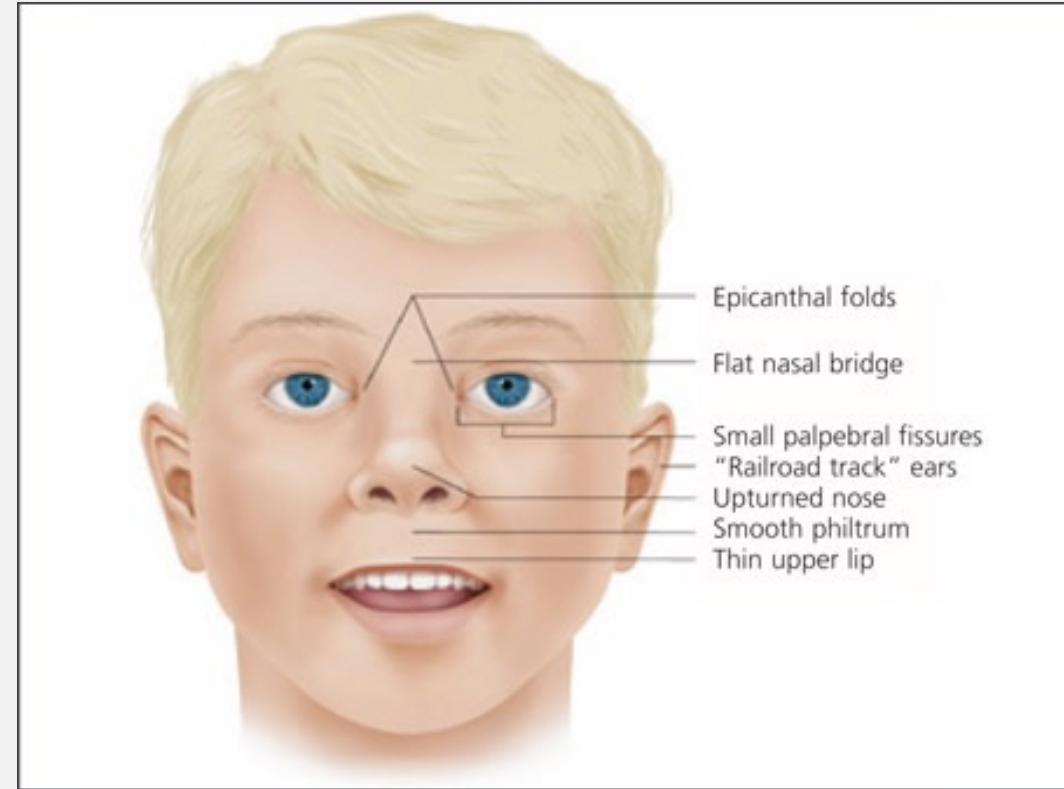
- “USPSTF concludes with moderate certainty that screening and brief behavioral counseling interventions for unhealthy alcohol ... is of moderate net benefit. [Level B recommendation]...”
- ...counseling interventions to reduce unhealthy alcohol use were associated with reductions in...
 - Overall alcohol use
 - The odds of exceeding recommended drinking limits
 - Heavy use episodes at 6 to 12 months of follow-up.”

SCREENING

Screen in
every practice
setting

- Adults
 - Alcohol Use Disorders Identification Test (AUDIT and AUDIT-C)
 - CAGE
 - If 2 “yes” answers, 71% sensitive/90% specific for alcohol use disorder by DSM-IV criteria
 - TACE (ACOG recommended <https://bit.ly/2HemNGw>)
 - NIAAA Single Question Screen
 - “How many times in the past year have you had more than 4/5 drinks in a day?”
 - DSM-5 Level 1 or 2 screens
 - Longer screens available
- Adolescents (12yo+)
 - CRAFFT
 - Recommended by AAP
 - Note: USPSTF says insufficient evidence to recommend for/against screening adolescents

FETAL ALCOHOL SPECTRUM DISORDER (FASD)



Resources

<https://nofas.org/>

AAP <https://bit.ly/3eHIK06>

<https://www.cdc.gov/ncbddd/fasd/index.html>

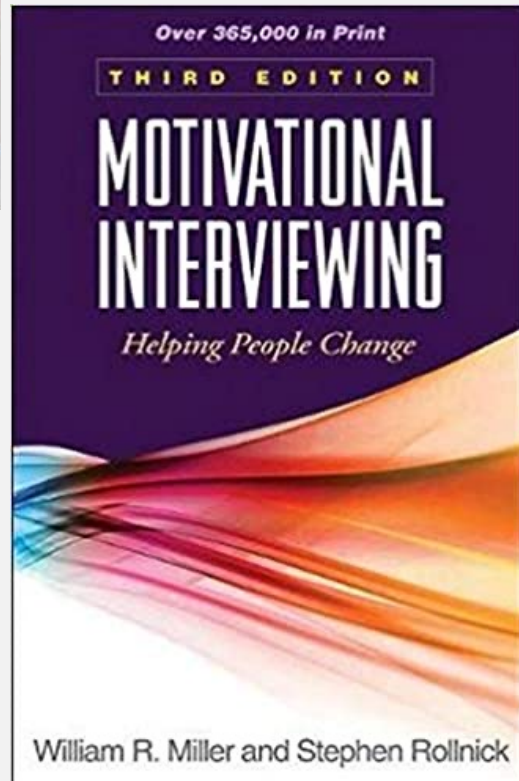
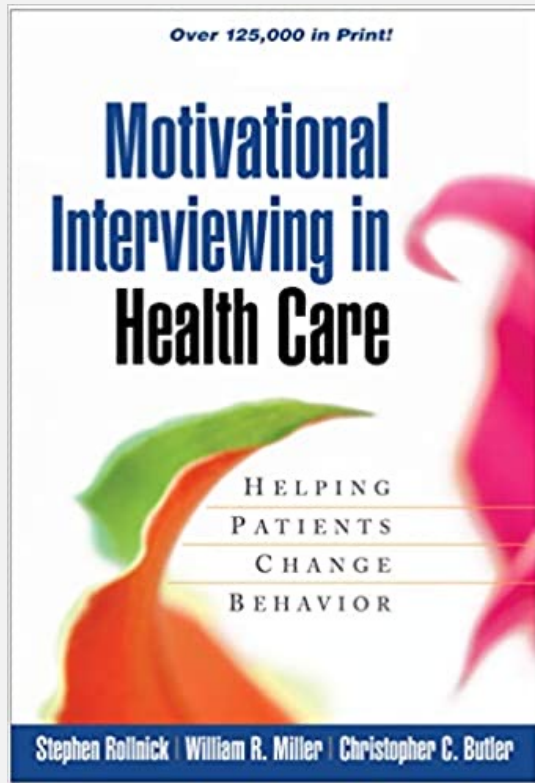
<https://www.aafp.org/afp/2005/0715/p279.html>

FETAL ALCOHOL SPECTRUM DISORDER (FASD)

- 1 in 100 or 40,000 newborns every year
 - FASD more common than Down Syndrome, Cerebral Palsy, SIDS, Cystic Fibrosis and Spina Bifida COMBINED
- Alcohol-Related Neurodevelopmental Disorder (ARND)
 - cognitive and behavioral difficulties
- Alcohol-Related Birth Defects (ARBD)
 - primarily affecting heart, kidneys, bones, hearing
- Fetal Alcohol Syndrome (FAS)
 - physical, behavioral and cognitive issues; range from mild impairments to fetal demise
- Neurobehavioral Disorder Associated with Prenatal Alcohol Exposure (ND-PAE)
 - 3 requirements- problems with thinking, behavior and ADLs

<https://www.cdc.gov/ncbddd/fasd/facts.html>

<https://www.nofas.org>



MOTIVATIONAL INTERVIEWING

“OARS”

Open questions

Affirmation

Reflection

Summarizing

Listening for change talk

<https://motivationalinterviewing.org/understanding-motivational-interviewing>

REIMBURSEMENT

- You can get paid for screening for alcohol/substance use
 - And get paid more for doing a brief intervention
- Also with new reimbursement guidelines, if you spend more time doing the intervention, you can increase the visit level
 - Just document the total time spent

CASE EXAMPLE

Remember Brenda with the hip fracture? Her current BAL is 0.25mg/dl (250g/dl). Further conversation makes you think she's been drinking pretty heavily for a while.

When writing her admission orders, do you put in for the banana bag?

DON'T FORGET THE VITAMINS!



- Banana bags too dilute
 - Not just poor intake → cirrhotic liver also impacts metabolism
- Thiamine 100mg IV (to start), then PO
- Magnesium & Cobalamin (B12)
 - Must be replaced to allow for optimal thiamine utilization
 - But usually time to check a level
- Potassium abnormalities → check EKG
- ICU protocol for severe withdrawal (2016)
 - 200-500 mg IV thiamine (B1) every 8 hours
 - 64 mg/kg magnesium sulfate (approximately 4-5 g for most adult patients)
 - 400-1,000 µg IV folate (B9)
- Remember that the “frequent flyers” are often given supplements at every ED visit- much less likely to be deficient than “covert” alcoholics

WERNICKE ENCEPHALOPATHY *

- Thiamine (B1) deficiency
 - Any nutritional deficiency, including bariatric surgery
- Can develop in 2-3 weeks
- Classic Triad: encephalopathy, ataxia, oculomotor abnormality
 - Really any altered mental status in setting of nutritional difficulties
 - Also hypothermia with hypotension
- Incidence of 12.5% in people with alcoholism
- Continue oral thiamine for as long as they continue to drink
- Must give IV/IM dose of Thiamine before or while giving glucose
 - Most protocols 100mg/day; better evidence for 500mg TID for first few days then 100mg while inpatient

***N.B.:**
NOT hepatic
encephalopathy,
ammonia level of
no help

KORSAKOFF PSYCHOSIS

- Anterograde and retrograde amnesia
 - Can repeat things back but no long-term memory
- Confabulation
 - Filling in memory gaps with any available information
- More likely present during alcohol withdrawal due to increased demands
- Rarely reversible
 - If improvement with high dose thiamine (IV/IM) – can continue to give until plateau in improvement

CASE EXAMPLE

The Med/Surg nurses said they can't accept a patient with a history of alcohol abuse, since she might develop DTs.

What's the next step?

PAWSS: PREDICTION OF ALCOHOL WITHDRAWAL SEVERITY SCORE

1. Have you had any alcohol in last 30days [or +BAL at visit]?
2. Prior alcohol withdrawal?
3. Prior withdrawal seizures?
4. Prior DTs?
5. Attended rehab before?
6. Ever had blackouts?
7. Mixed alcohol with downers e.g. BZDs?
8. Mixed alcohol with any other substance of abuse?
9. Was BAL >200 (0.2)?
10. Evidence of increased autonomic activity (HR >120, tremor, agitation).

Free on medical calculators

PAWSS AND ALCOHOL TAPER

- 4 or more positive, HIGH RISK for mod/severe withdrawal
- Idea is to be more aggressive with prophylactic meds for alcohol withdrawal

Does an alcohol taper work?

- Risky, especially if +PAWSS
- Consider reducing by 1-2 standard drinks every 1-2 days
 - But protracted withdrawal expected
 - Internet search: lots of recommendations from non-official sources...

CLINICAL INSTITUTE WITHDRAWAL ASSESSMENT FOR ALCOHOL- REVISED (CIWA-AR)

Total score: <9 mild/no withdrawal; 10-19 moderate; 20+ severe withdrawal

Nausea/Vomiting:
0-7

Tremor: 0-7

Sweats: 0-7

Anxiety: 0-7

Agitation: 0-7

Tactile
Disturbances: 0-7

Auditory
Disturbances: 0-7

Visual
Disturbances: 0-7

Headaches: 0-7

Orientation: 0-4

Max score: 67

CASE EXAMPLE

Brenda's CIWA is 6, her PAWSS is 4, her last drink was 3 hours ago.

You give a BZD prophylactic dose to get ahead of any potential withdrawal.

What floor can she go to?

WHERE TO ADMIT?

- Hard and fast rules not helpful for admission criteria
- Consider not just current CIWA score but also how many doses of meds it took to get patient there
 - 20+ can be ICU/CCU
- Also look at past history – if prior DTs/seizures want more frequent monitoring

KINDLING

- With each withdrawal symptoms are worse and start sooner after cessation
 - Lower seizure threshold
- Carbamazepine most studied
 - Oxcarbamazepine may also be effective
 - Gabapentin also has positive studies
- Increasing evidence for Topiramate, Zonisamide

PROPHYLACTIC
VS
SYMPTOMATIC
VS
FIXED DOSING

- Prophylactic actually uses less medicine and less complications
- Symptomatic once treatment initiated also uses less meds and less complications/side effects
- Fixed dose taper helpful for outpatient management

ACUTE WITHDRAWAL: INPATIENT

- Gold Standard is Benzodiazepines
- If PAWSS positive, even if CIWA neg → start BZD taper
- Want long-acting BZD (Chlordiazepoxide or Diazepam)
 - Less rebound
- Lorazepam if severe liver disease *off label

Equivalency
Chart

Chlordiazepoxide (Librium)	Diazepam (Valium)	Lorazepam (Ativan)	Alprazolam (Xanax)	Clonazepam (Klonopin)
25mg	10mg	2mg	1mg	0.5mg

RESISTANT ALCOHOL WITHDRAWAL

- If large doses of BZD or drip is unsuccessful
 - >150mg Diazepam or >30mg Lorazepam in first 4 hours, add a med:
 - Propofol
 - Phenobarbital/pentobarbital
 - Dexmedetomidine (IV alpha 2 agonist)
- Evidence not clear if anticonvulsants assist with stopping seizures in alcohol withdrawal, most often used as adjunct tx unless low(er) risk
- Ketamine?

<https://emedicine.medscape.com/article/819502>. <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5759952/>. https://www.asam.org/docs/default-source/quality-science/the_asam_clinical_practice_guideline_on_alcohol-1.pdf Dexmedetomidine <https://bit.ly/2QI5Haf>

Phenobarbital <https://emcrit.org/pulmcrit/phenobarb-sampler/> Ketamine https://journals.lww.com/ccmjournal/Abstract/2018/08000/Adjunct_Ketamine_Use_in_the_Management_of_Severe.33.aspx

CASE EXAMPLE

Jamie comes for an office visit. He states his family has convinced him to get help for his drinking, “but I don’t need rehab, I just need some help cutting back”. Though he is sometimes shaky then next morning “when I overdo it”, he’s never had DTs.

What is the next step?

ASSESSMENT: ASAM CRITERIA

- 6 Domains to assess treatment location/placement
 1. Acute intoxication or withdrawal potential
 2. Biomedical conditions and complications
 3. Emotional, behavioral, or cognitive conditions or complications
 4. Readiness for change
 5. Relapse, continued use or continued problem potential
 6. Recovery/living environment
- Labs
 - CBC, CMP (renal, LFTs)
 - Consider Hepatitis, HIV, TB assessment
 - Per guidelines, don't delay treatment waiting for lab results

<https://www.asam.org/asam-criteria/about>

<https://www.asam.org/Quality-Science/quality/guideline-on-alcohol-withdrawal-management>

TO ADMIT OR NOT TO ADMIT?

- Use the CIWA and the PAWSS
 - CIWA >18 = Admit (doesn't matter the PAWSS)
 - CIWA 10-18 = can be outpatient if no hx of DTs/seizure
 - CIWA <10 + PAWSS >4 = clinical judgment but usually outpatient
 - CIWA <10 + PAWSS <4 = Lowest risk, may not need any w/d meds, only meds for supportive care

https://cdn-links.lww.com/permalink/jam/a/jam_00_00_2020_04_06_white_jam-d-20-00038_sdc1.pdf

<https://www.the-hospitalist.org/hospitalist/article/121823/should-patient-who-requests-alcohol-detoxification-be-admitted-or-treated>

https://www.asam.org/docs/default-source/quality-science/the_asam_clinical_practice_guideline_on_alcohol-1.pdf

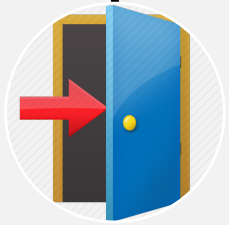
ADMIT FLOWCHART



At least 5 hours
since last drink*



PAWSS 4+



CIWA <10



CIWA >10

ALCOHOL – ACUTE WITHDRAWAL/DETOX

- Gold standard is BZD taper in/out-patient
 - Long acting preferred
 - If bad liver- use Lorazepam (off label)
- Anticonvulsants +/- BZDs
 - Valproate, Carbamazepine, Gabapentin, Topiramate
 - Not good evidence for using alone per Cochrane in 2010
 - But systematic review in 2018 found good evidence
- Adjuvants
 - Antidepressants/antipsychotics, Anti-hypertensives *off label
- Outpatient protocols for mild/moderate AWS (AAFP,ASAM)

OUTPATIENT DETOX

- BZD Protocol:
 - 50mg Chlordiazepoxide or 10-20mg Diazepam q6hr for 1-2 days
 - Dose until CIWA <10 if following symptom trigger or front-loaded regimen
 - Then TID for 1-2 days, then BID for 1-2 days, then Daily for 1-2 days
 - Basically taper daily total dose by 25–50% per day over 3–5 days
 - ASAM 2020 guidelines, Project ECHO, AAFP Protocols
- AED Protocols can be monotherapy or adjunct
 - Carbamazepine 600-800mg/day down to 200mg/day over 4-7 days
 - Gabapentin 1200-1800mg/day down 300mg/day over 4-7 days
 - Valproic acid 1200mg/day down to 600mg/d over 4-7 days

https://cdn-links.lww.com/permalink/jam/a/jam_00_00_2020_04_06_white_jam-d-20-00038_sdc1.pdf --> page 71

<https://echo.unm.edu/wp-content/uploads/2014/10/Alcohol-Abuse-and-Addiction-Management-Protocol.pdf> <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5957503/>

<https://evidencebasedpractice.osumc.edu/Documents/Guidelines/AlcoholWithdrawal.pdf> <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5759952/>

https://psychiatryonline.org/pb/assets/raw/sitewide/practice_guidelines/guidelines/substanceuse.pdf

CASE EXAMPLE

Jamie was able to stop drinking but admits he finds himself “white knuckling it”.

What meds can help?

NALTREXONE

(BRAND: REVIA, VIVITROL)

- Opioid antagonist
- Once daily pill or once monthly injection
- Need to be opioid free x1 wk before starting (no matter reason for use)
- Can't be used with severe liver disease, may also cause increase in LFTs
- Pregnancy: limited data on pill, but avoid injection
 - More data as it relates to opioid dependence
- Breastfeeding: limited data, should be ok

ACAMPROSATE (BRAND: CAMPRAL)

- Targets GABA and glutamate receptors
- TID dosing
 - Med compliance related to increase in abstinence rates
- Not related to liver pathways, but is excreted by kidneys
- Not effected by ETOH consumption
- Pregnancy: limited data, caution advised
- Breastfeeding: limited data, should be ok

DISULFIRAM (BRAND: ANTABUSE)

- Stops breakdown of alcohol, results in build up of acetaldehyde
 - Which causes side effects (vomiting, flushing, palpitations)
- Must take it daily
- Cannot take if hx of CAD, CHF
- Monitor LFTs
- Interacts with ALL alcohol products (mouthwash, cold medicine, wine sauce with dinner)
- Pregnancy: limited data, definitely not good if still drinking
- Breastfeed: limited data, should be ok

MEDS FOR SOBRIETY: *ALL OFF LABEL*

Baclofen

- GABA-B receptor agonist
- Ok for liver disease, not renal disease
- Mixed evidence, variability in study dosing (30mg-300mg/day)
- Used much more frequently in Europe
- May be 2nd line treatment
- <https://www.frontiersin.org/articles/10.3389/fpsy.2018.00708/full>

Alpha & Beta Blockers

- Alpha blockers > Beta blockers as treat vs mask tachycardia/hypertension
- Clonidine and Prazosin in particular- evidence of assistance with sobriety beyond symptomatic relief
- <https://pubmed.ncbi.nlm.nih.gov/32959918/>
<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5995154/>

Topiramate

- Multiple studies show positive results
- Only use immediate release version
- <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6248154/>

MEDS FOR SOBRIETY: *ALL OFF LABEL*

Varenicline (Chantix)

- Several positive studies
- Usually in context of also smoking
- Caution with hx of psychosis/SPMI
- <https://jamanetwork.com/journals/jamapsychiatry/fullarticle/2665215>

Ondansetron

- 5-HT₃ antagonist
- Remember that 5-HT = Serotonergic
- Dosing BID (not just symptomatically) shown to impact alcohol consumption
- *watch for QT prolongation
- <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6248154/>

Any antidepressant

- Not FDA approved specifically for AUD but help with dual diagnosis
- <https://www.cochranelibrary.com/cdsr/doi/10.1002/14651858.CD008581.pub2/full>

CASE EXAMPLE

What other resources are helpful for those with alcohol or other addictions?

SUPPORT GROUPS

- 12 Step Programs (TSF)
 - Alcoholics Anonymous
 - AlaTeen: support for teens/kids of people with alcoholism
 - AlAnon: support for family members
 - ACoA: Adult Children of Alcoholics
- Secular Organizations for Sobriety
- Women for Sobriety/Men for Sobriety
- SMART Recovery
- LifeRing Secular Recovery
- Celebrate Recovery

<http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2746426/> <http://bit.ly/1hmY9yy>

<https://www.cochranelibrary.com/cdsr/doi/10.1002/14651858.CD012880.pub2/full?highlightAbstract=alcohol>

COCHRANE REVIEW OF TSF PROGRAMS

2006

“No experimental studies unequivocally demonstrated the effectiveness of AA or TSF approaches for reducing alcohol dependence or problems.”

But the two reviews looked at DIFFERENT outcomes- harm reduction vs abstinence only.

Interesting article highlighting this

<https://filtermag.org/alcoholics-anonymous-cochrane/>

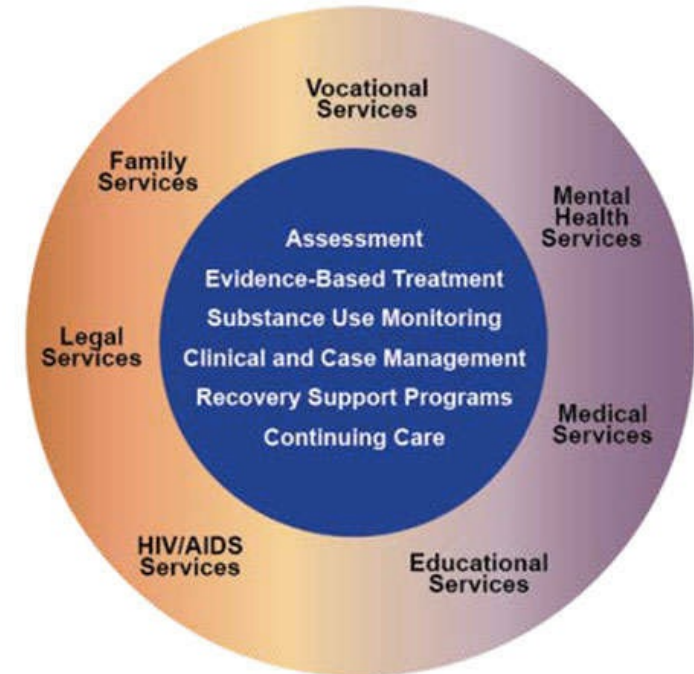
2020

“There is high quality evidence that **manualized** AA/TSF interventions are more effective than other established treatments, such as CBT, for increasing abstinence. Non-manualized AA/TSF **may** perform as well as these other established treatments. AA/TSF interventions, both manualized and non-manualized, may be at least as effective as other treatments for other alcohol-related outcomes. AA/TSF probably produces substantial healthcare cost savings among people with alcohol use disorder.”

HOW TO BE SUCCESSFUL

- Look at other factors
 - Comprehensive Harm Reduction
- Support services
- Family dynamics
- Medical co-morbidities
- Partner with community services

Components of Comprehensive Drug Addiction Treatment



The best treatment programs provide a combination of therapies and other services to meet the needs of the individual patient.

<https://www.drugabuse.gov/publications/drugfacts/treatment-approaches-drug-addiction>

<https://harmreduction.org/about-us/principles-of-harm-reduction/>

HOW TO FIND COMMUNITY RESOURCES

- Hospital behavioral health, case management/social work
- Local mental health organizations
 - Even if they don't provide D&A services, likely know where to refer!
- Local/state health department
- SAMHSA Help Line [800-662-HELP \(4357\)](tel:800-662-HELP)
 - <https://findtreatment.gov/>
- Be wary of internet searches!

COMMUNITY RESOURCES

Don't forget to take care yourself and your colleagues

Reach out for help!

Federation of State Physician Health Programs

<https://www.fsphp.org>



The Foundation's mission is to reduce burnout of health care professionals and safeguard their well-being and job satisfaction. We envision a world where seeking mental health services is universally viewed as a sign of strength for health care professionals

FINISHING UP

TAKE HOME POINTS

- Screen everyone for alcohol use disorder
- Tap into local resources
- Support patients and families, connect with the community
- Offer but don't mandate TSF
- Consider meds to assist with maintaining sobriety

- Take care of yourself so that you can take care of others!

RESOURCES

- ASAM – updated alcohol guidelines 2020
 - <https://www.asam.org/Quality-Science/quality/guideline-on-alcohol-withdrawal-management>
- Project ECHO - Based in New Mexico but numerous expansions
 - <https://hsc.unm.edu/echo/get-involved/join-an-echo/>
- American Psychiatric Association
 - <https://psychiatryonline.org/doi/book/10.1176/appi.books.9781615371969>
- SAMHSA
- NIAAA
- NIDA
- Clinician Consultation Center Hotline
 - <http://nccc.ucsf.edu/clinician-consultation/substance-use-management/>

QUESTIONS? COMMENTS? COPIES?

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