



2023 SCSG
LIVER SYMPOSIUM
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Alcohol Use Disorder

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Disclosures

- I have no relevant disclosures

Objectives

- Definition of Alcohol Use Disorder (AUD)
- Epidemiology
- Screening Tools
- Role of GI/hepatologist in AUD management
- Behavioral Therapy
- AUD pharmacotherapy (in ALD)

How to Define AUD?

- DSM IV: alcohol abuse, alcohol dependence
- DSM V (2013): Combines categories into AUD
 - Mild, moderate, or severe

Diagnostic Criteria for AUD (DSM V)

Table 1 - Diagnostic Criteria for Alcohol Use Disorder

Your Experience in the Past Year	
1.	Alcohol is often taken in <u>larger amounts</u> or over a <u>longer period</u> than intended.
2.	There is a persistent desire or <u>unsuccessful efforts to cut down</u> or control alcohol use.
3.	A great deal of time is spent in activities necessary to obtain alcohol, use alcohol, or recover from its effects.
4.	<u>Craving</u> , or a strong desire or urge to use alcohol.
5.	Recurrent alcohol use resulting in a <u>failure to fulfill major role obligations</u> at work, school, or home.
6.	<u>Continued alcohol use despite having persistent or recurrent social or interpersonal problems</u> caused or exacerbated by the effects of alcohol.
7.	Important social, occupational, or recreational <u>activities are given up or reduced</u> because of alcohol use.
8.	Recurrent alcohol use in situations in which it is <u>physically hazardous</u> .
9.	Alcohol use is continued despite knowledge of having a persistent or recurrent physical or psychological problem that is likely to have been caused or exacerbated by alcohol.
10.	<u>Tolerance</u> , defined as either of the following: Need for markedly increased amounts of alcohol to achieve intoxication or desired effect; or Markedly diminished effect with continued use of the same amount of alcohol.
11.	<u>Withdrawal</u> , as manifested by either of the following: The characteristic alcohol withdrawal syndrome; or Alcohol (or a closely related substance, such as a benzodiazepine) is taken to relieve or avoid withdrawal symptoms.

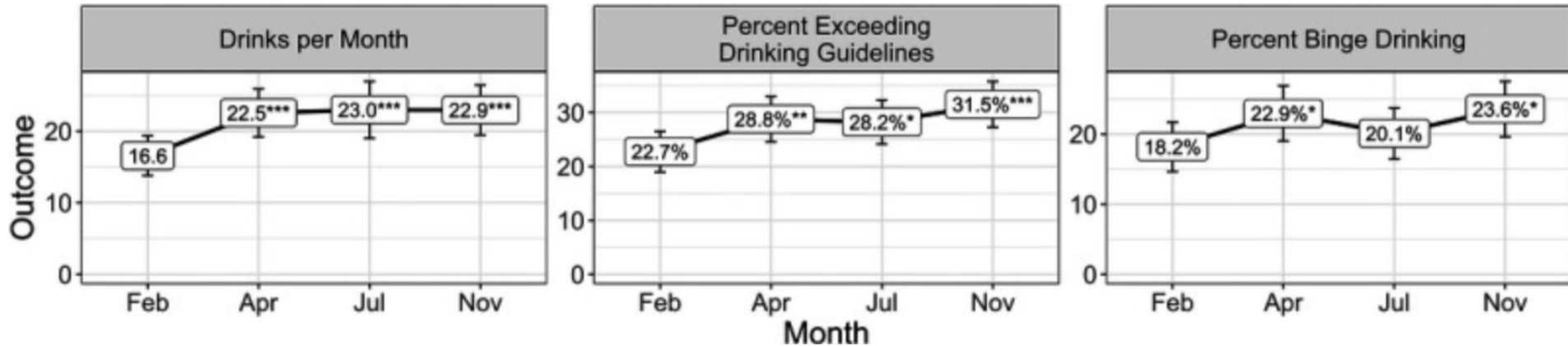
The presence of at least 2 of these symptoms indicates an AUD:

- **Mild:** 2-3 symptoms
- **Moderate:** 4-5 symptoms
- **Severe:** 6 or more symptoms

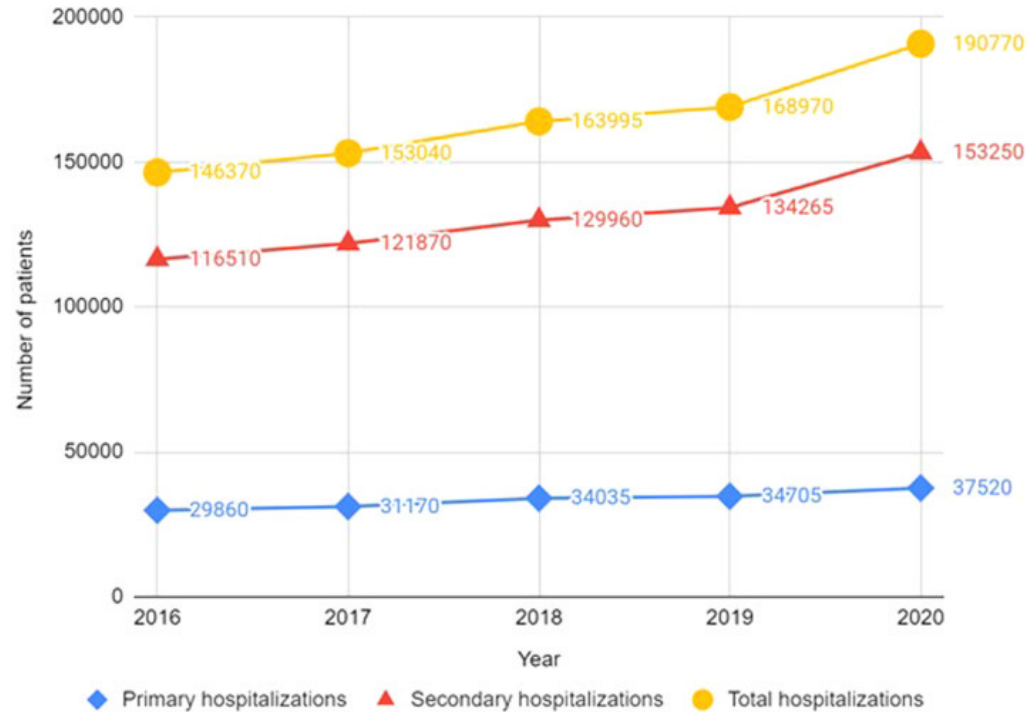
Epidemiology

- 2001 → 2013
 - Rates of AUD increased by 50%
- AUD rates increased further after COVID

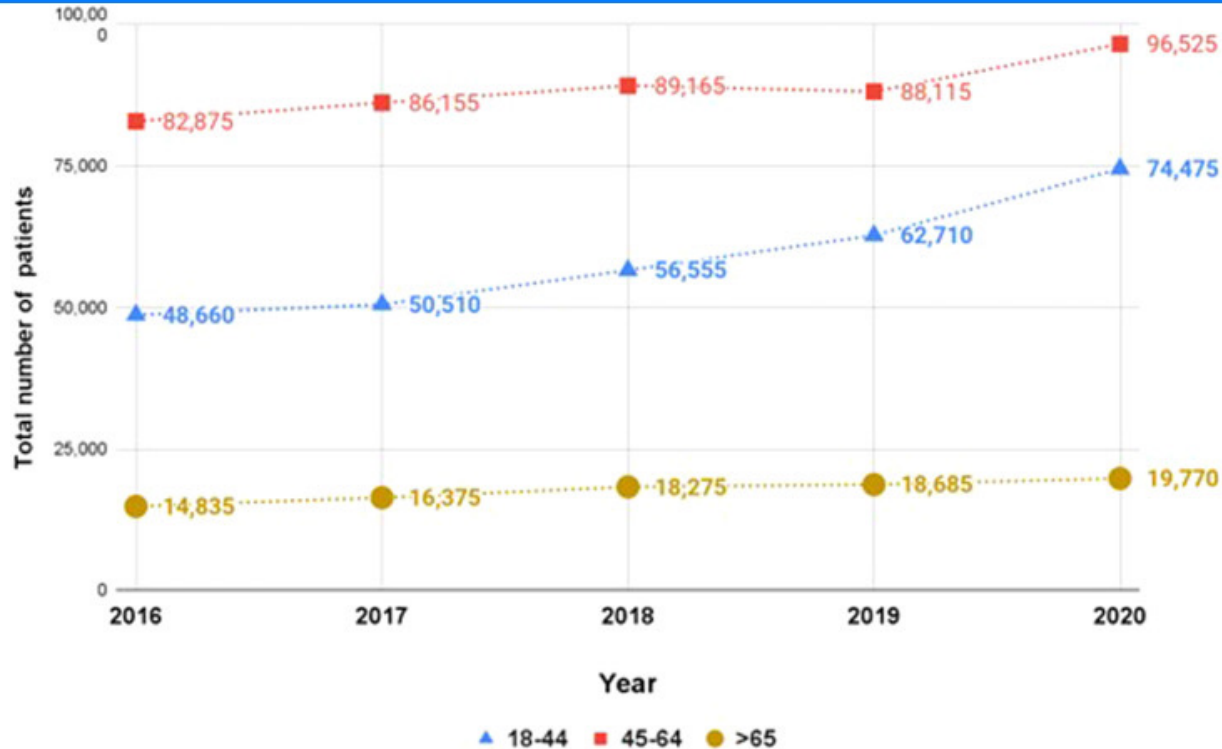
AUD Rise During COVID



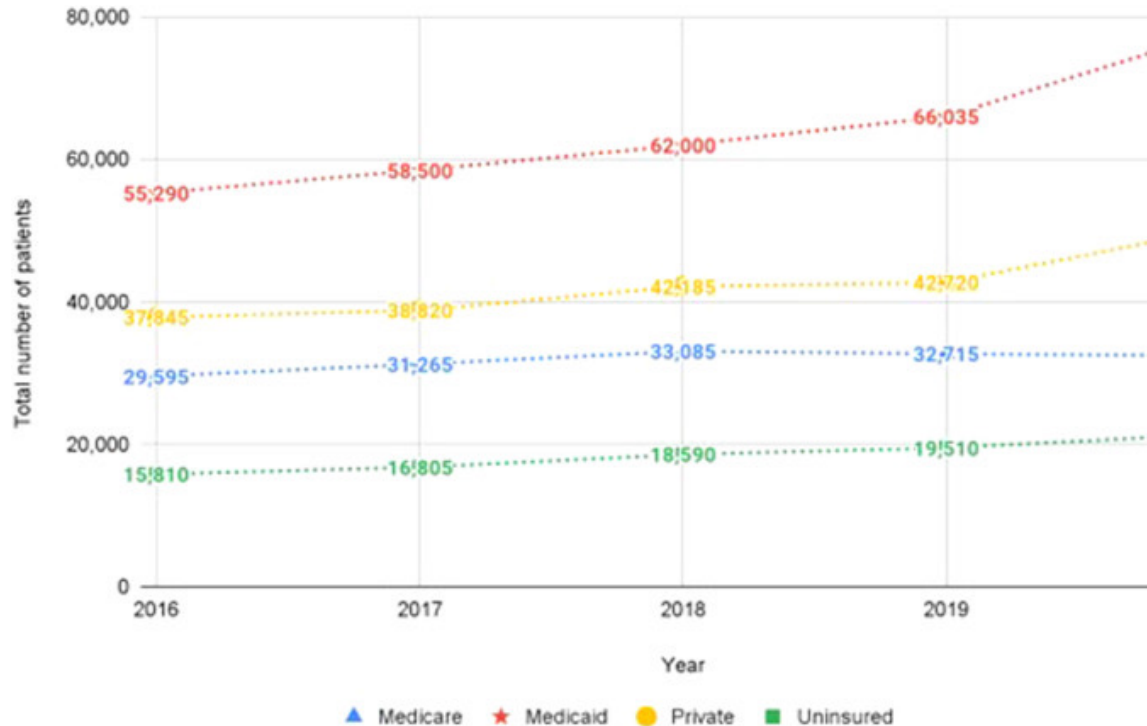
AUD Rise During COVID



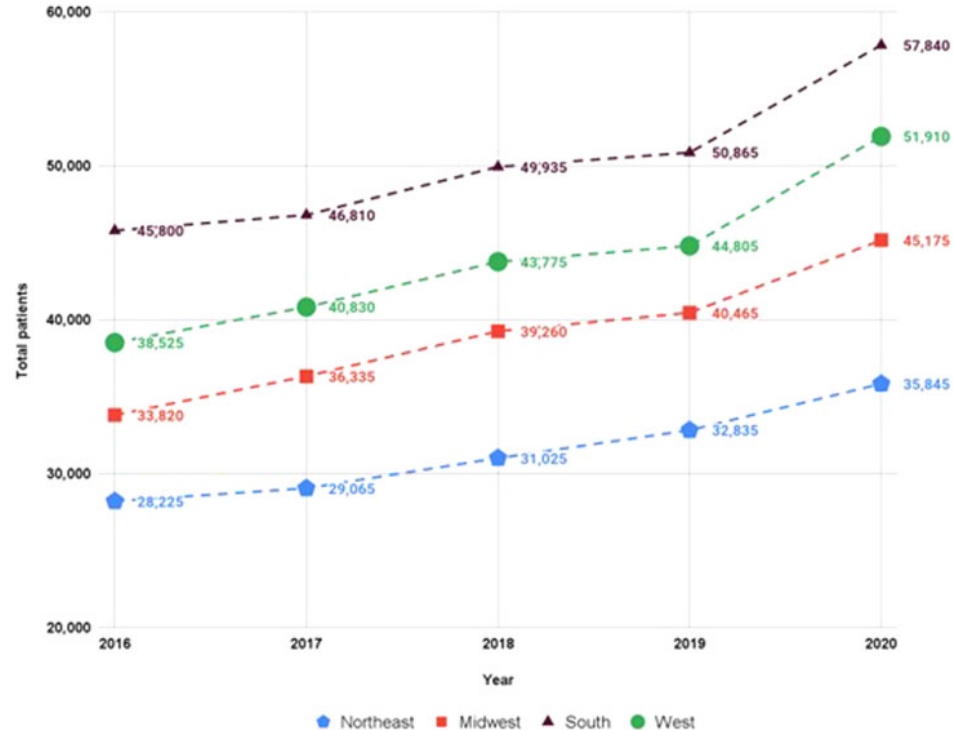
AUD Rise During COVID



AUD Rise During COVID



AUD Rise During COVID

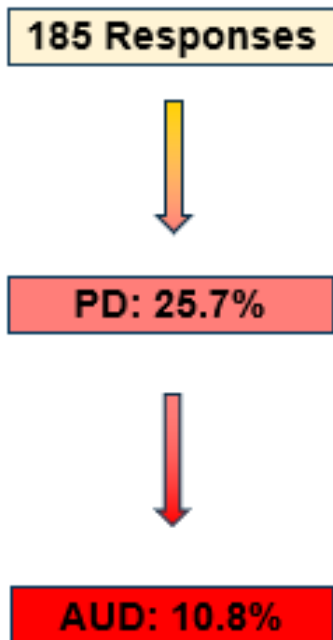


- NSDUH, 2021:
 - 28.6 million people \geq 18 years with AUD in past year
 - Only 1.3 million (4.6%) received AUD treatment
- SAMHSA, 2017:
 - 10.5% of U.S. children \leq 17 years have a parent with AUD
- Alcohol related ED visits increased by 47% (from 2006 \rightarrow 2014)
- Deaths from alcohol rose by 25% (from 2019 \rightarrow 2020)

Epidemiologic Insights

- Physicians:
 - 15% with alcohol abuse/dependence
 - Male and younger physicians
- Transplant Hepatologists:
 - Survey study in 2019 across U.S.

Alcohol Use Among Hepatologists



Predictors of Higher AUDIT-C Scores					
Variable	Beta (SE)	p	Variable	Beta (SE)	p
Male (vs. female)	0.26 (0.13)	<0.05	Number of TH colleagues	-0.07 (0.09)	n.s
Years in practice	-0.04 (0.13)	n.s	Hours worked at home	-0.35 (0.18)	<0.05
Married (v. single)	-0.60 (0.20)	0.004	Frequency of trainee supervision	-0.27 (0.26)	n.s
Divorced (v. single)	-0.65 (0.27)	0.02	Participates in outreach clinic	0.17 (0.12)	n.s
Northeast (v. Southeast)	0.11 (0.17)	n.s	Positive affect	-0.004 (0.01)	n.s
Midwest (v. Southeast)	-0.11 (0.18)	n.s	Negative affect	0.01 (0.22)	n.s
West (v. Southeast)	0.14 (0.19)	n.s	CDRISC	-0.003 (0.05)	n.s
Southwest (v. Southeast)	-0.03 (0.26)	n.s	Depersonalization	0.03 (0.02)	n.s
Call weeknights per mo.	0.07 (0.06)	n.s	Personal Achievement	0.04 (0.01)	0.006
Annual income	0.02 (0.06)	n.s	Emotional Exhaustion	-0.004 (0.01)	n.s
Medical errors (last 3 months)	0.02 (0.06)	n.s			

Table 3. Predictors (demographic, professional, and psychological characteristics) associated with higher AUDIT-C Scores. More hours worked from home and being married or being divorced (rather than never married) were associated with lower AUDIT-C scores. Being male and high self-ratings of personal achievement were associated with higher AUDIT-C scores. CDRISC, Connor-Davidson Resilience Scale. SE, standard error.

AUDIT-C

TABLE 2 - AUDIT-C Screening Questions

1. How often do you have a drink containing alcohol?

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)
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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)
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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)
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1 drink

= 12 oz of beer

= 8-9 oz of malt liquor

= 5 oz of wine

= 1.5 oz shot

Maximum score is 12

Men: ≥ 4 suggests AUD

Women: ≥ 3 suggests AUD

CAGE Questionnaire

- Need to **C**ut down on alcohol?
- Have people **A**nnoyed you about your drinking?
- Have you ever felt **G**uilty about your drinking?
- Have you ever had an **E**ye-opener?

AUD \geq 2

Biomarkers

Table 2 - Performance of Biomarkers of Alcohol Use in Alcoholic Liver Disease. Detection Time, Cutoff Values, and Performance of Individual Tests

Test	Source	Detection Time	Cutoff Values	Sensitivity	Specificity	PPV	NPV	Clinical Use
CDT/%CDT*	Blood	2-3 weeks	1.7%-2.6%	21%-50%	50%-100%	64%-100%	86%-93%	Lower sensitivity and specificity
EtG	Urine	3 days	500 ng/mL	76%-89%	93%-99%	81%-90%	91%-99%	False positives and greater patient awareness of testing
EtG	Hair	Months	30 pg/mg	81%-100%	83%-98%	68%-95%	86%-100%	Costly, requires significant hair sample, limited availability
EtS	Urine	3 days	75 ng/mL	82%	86%	70%	93%	Often used to confirm + EtG
PEth	Blood	2-3 weeks	20 ng/mL	97%-100%	66%-96%	85%	100%	More costly than urine EtG

*Not all studies used the preferred disialotransferrin glycoform that best correlates with alcohol intake. Some studies conducted on posttransplant patients show better performance than pretransplant patients.

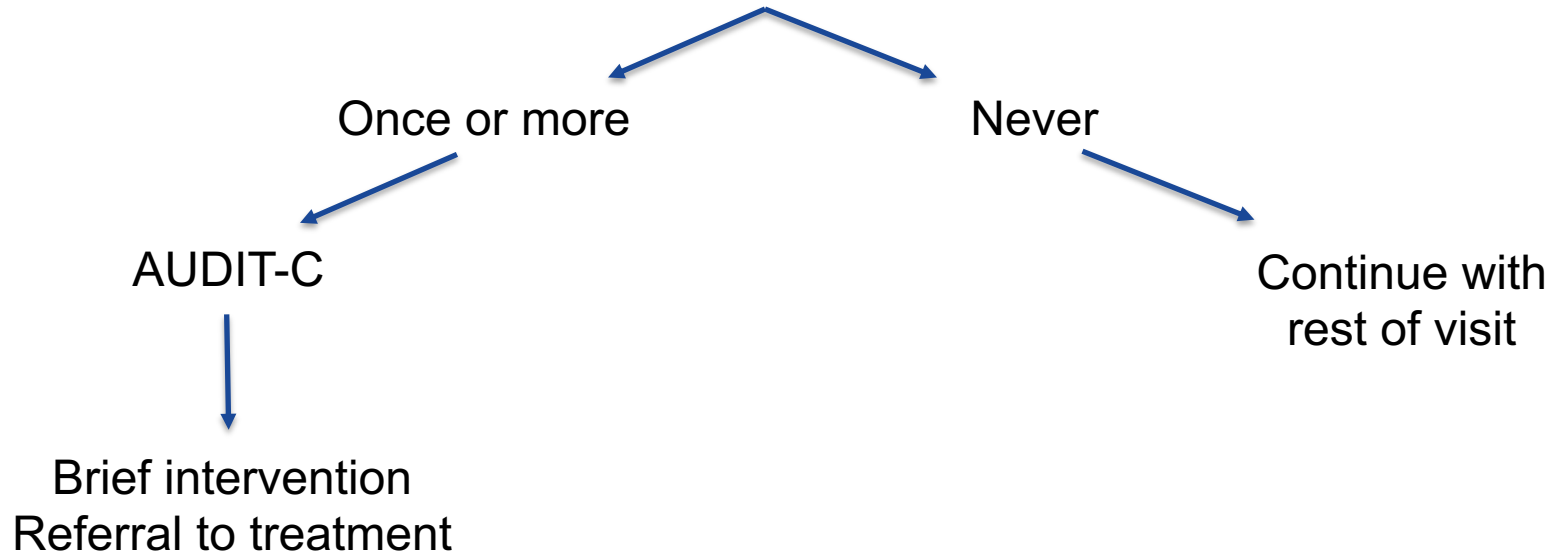
Abbreviations: NPV, negative predictive value; and PPV, positive predictive value.

How Are We Doing in Our Clinics?

Survey Questions (n = 420)	
How often do you ask about alcohol use to a new patient with liver disease?	
Never/rarely	0
Sometimes	3 (0.7%)
Usually	21 (5%)
Always	396 (94.3%)
How often do you ask about frequency of alcohol use?	
Never/rarely	1 (0.2%)
Sometimes	3 (0.7%)
Usually	32 (7.6%)
Always	384 (92.4%)
How often do you use screening tools?	
Never/rarely	198 (47.1%)
Sometimes	129 (30.7%)
Usually	56 (14.8%)
Always	37 (8.8%)

A Simplified Screening Strategy

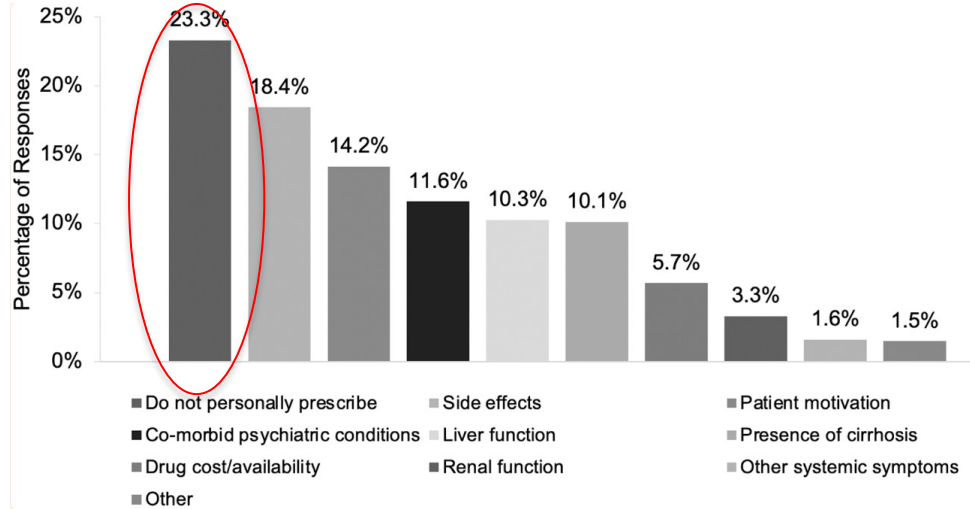
“How many times in the past year have you had ≥ 5 drinks in a day (for men) or ≥ 4 drinks in a day (for women)?”



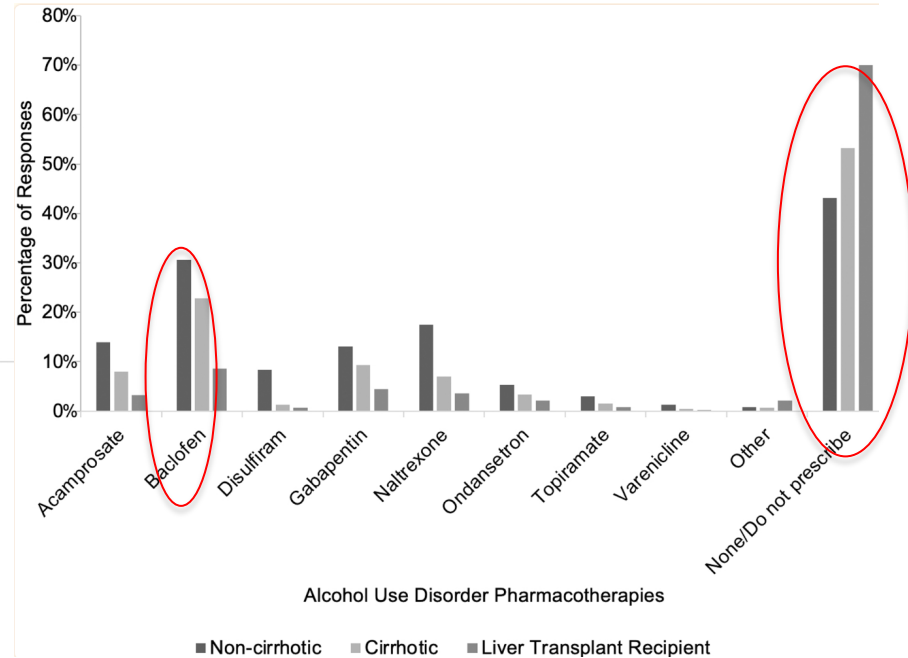
What About Treatment?

- AUD is common in liver & GI clinics
- AUD treatment is a part of ALD management

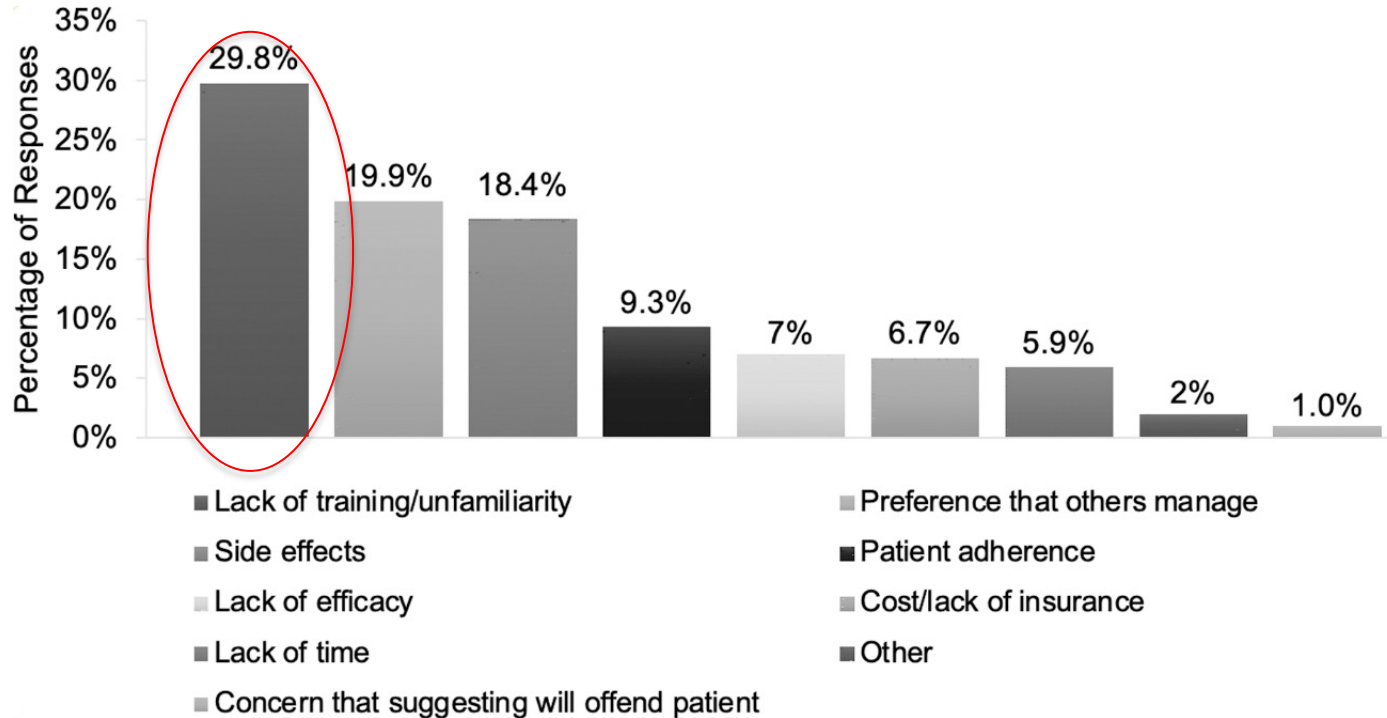
Provider Attitudes to Treating AUD



Provider Considerations



Provider Attitudes to Treating AUD



1st Line Interventions

- Referral to AUD treatment professionals
- Multidisciplinary involvement
- Behavioral interventions
- Pharmacotherapy

AUD Treatments

- Acamprosate
 - 1st line option for AUD
 - 666mg TID or 999mg BID
 - No hepatic metabolism
- Disulfiram
 - FDA approved for AUD
 - Hepatic metabolism; AVOID

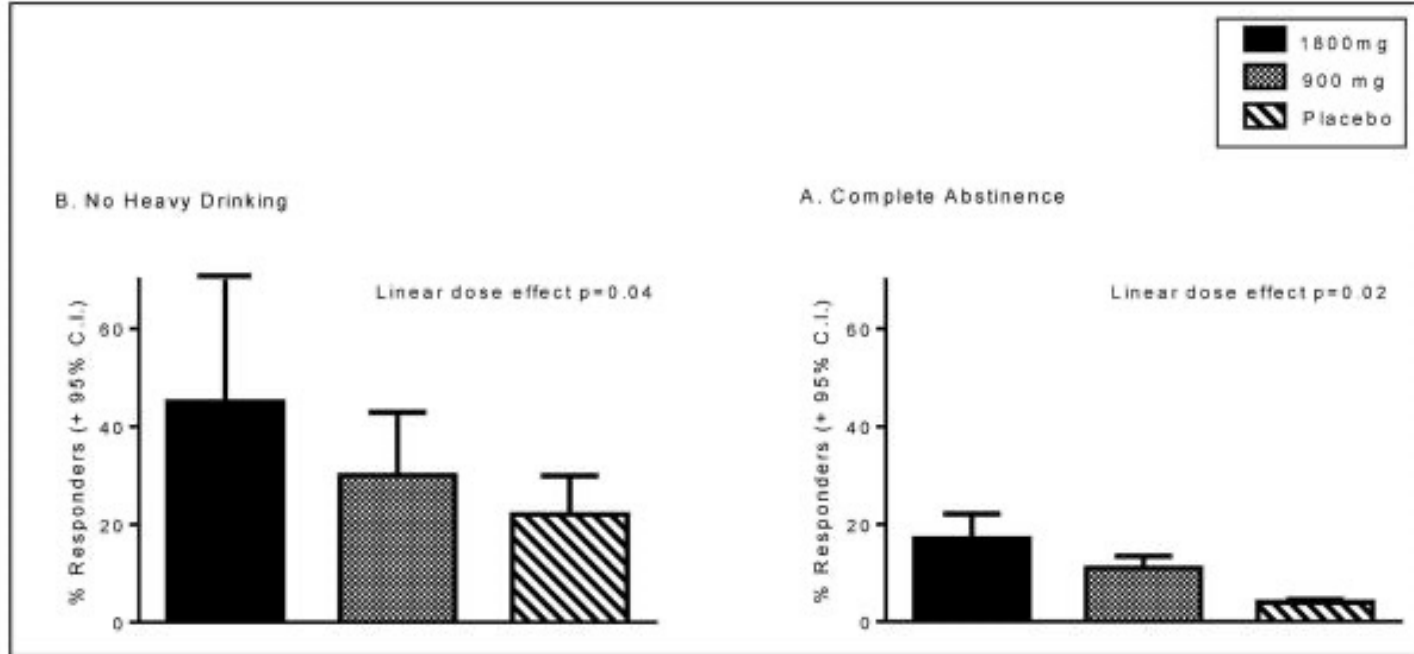
AUD Treatments

- Naltrexone
 - 1st line treatment for AUD
 - Improves abstinence and heavy drinking
 - 50mg daily or 380mg IM monthly
 - Concerns w/ hepatotoxicity

AUD Treatments

- Gabapentin
 - Increases 12-week abstinence rates and reduces heavy drinking
 - Greatest among those with withdrawal symptoms
 - Somnolence, dizziness, headaches
 - Initiate 300mg Qd; increase in increments
 - Target dose of 600 TID
 - Dose reduce in cirrhosis and renal failure

Gabapentin



AUD Treatments

- Topiramate
 - Reduces heavy drinking and increases abstinent period
 - Dose escalation required
 - AE: somnolence, confusion, paresthesias, nephrolithiasis
 - Dose reduce for severe liver or renal impairment

AUD Treatments in ALD

- Baclofen
 - AASLD recommendation
 - 10mg TID improves 12-week abstinence
 - ONLY med studied in cirrhosis (not FDA-approved)
 - Cumulative abstinence: 62.8 days vs 30.8 days, $p=0.001$
 - Sedation (avoid in HE)

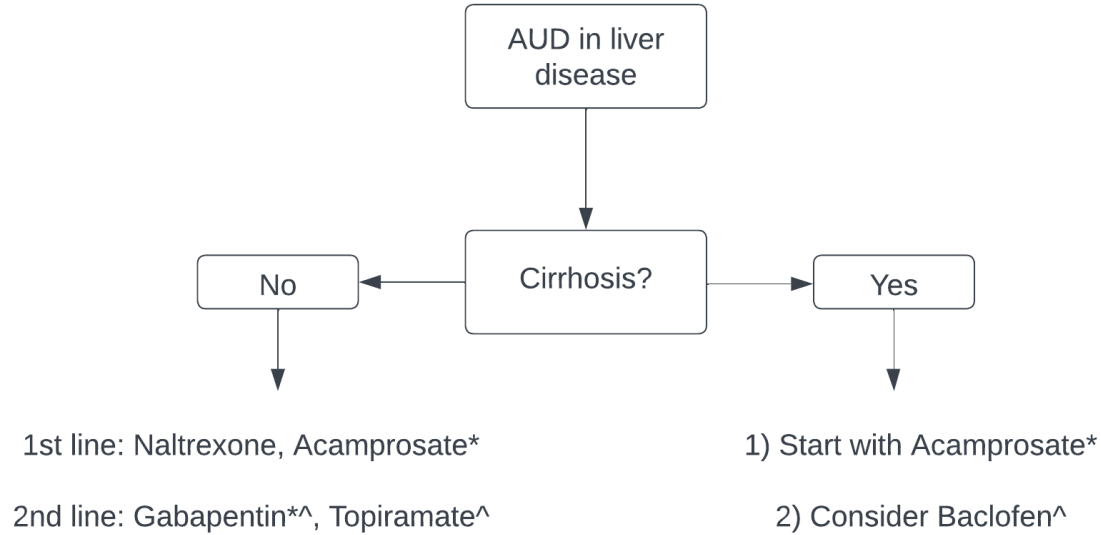
Considerations in Decompensated Cirrhosis

- Topiramate can precipitate confusion
- Baclofen and gabapentin – sedation
 - Precipitate HE
 - Consider dose reduction

Treatment Algorithm

- AASLD: “Based on limited data, the use of acamprosate or baclofen can be considered for the treatment of AUD in patients with ALD.”

Treatment Algorithm



Conclusion

- AUD is rising
- Pharmacotherapy improves heavy drinking and prolongs period of abstinence
- Screening and treating for AUD in liver/GI clinics is grossly underutilized
- National guidelines recommend screening all patients for AUD and considering treatment
- More research is needed to identify best practices BUT current framework exists to treat AUD safely in liver clinics



Thank You

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