An Internist’s Guide to Unhealthy Alcohol Use

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Disclosures

• None
Learning Objectives

• Understand the terminology used to describe unhealthy alcohol use
• Identify means of screening for alcohol use disorder
• Describe the utility of brief primary care-based interventions for unhealthy alcohol use
• Achieve familiarity with FDA-approved medications for alcohol use disorder
Patient DM

• 58 year old man with hypertension, depression, and bilateral hearing loss s/p bilateral cochlear implants

• Drinks 24-48oz beer daily, often drinks after walking dogs in the morning
• Niece reports he is drinking substantially more
• Denies any legal, social, work, or medical consequences of his alcohol use
Patient RW

• 43 year old man with hypertension, chronic hepatitis C recently treated with cure, anxiety, and opioid use disorder on Suboxone maintenance

• History of heavy alcohol (72oz beer/day) use since late teens with up to 90 days of sobriety in the past without specific treatment

• Previous legal (DUI) and employment issues related to his alcohol use

• Has tried to quit cold turkey but gets tremors
Outline

• Epidemiology
• Language and terminology
• Screening
• Treatment
Epidemiology

• 138M (52%) individuals ≥ 12 years old have used alcohol in the past month
• > 88K alcohol-related deaths annually
• Responsible for 1 in 10 deaths of adults aged 20-64
• 3\textsuperscript{rd} leading cause of preventable death
• $249B in costs in 2010

SAMHSA, NSDUH 2015.
Centers for Disease Control and Prevention. ARDI, 2013.
Language and Terminology

• Unhealthy alcohol use
  • Risky use
    • Men < 65 - ≥ 14 standard drinks/week on average or ≥ 4 drinks on any day
    • Women, and men ≥ 65 - ≥ 7 standard drinks/week on average or ≥ 3 drinks on any day
  • Alcohol use disorder – a pattern of alcohol use leading to clinically significant impairment or distress, as manifested by multiple psychosocial, behavioral, or psychologic features

What Is a Standard Drink?

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 distilled spirits (gin, rum, tequila, vodka, whiskey, etc.)

Each beverage portrayed above represents one standard drink of "pure" alcohol, defined in the United States as 0.6 fl oz or 14 grams. The percent of pure alcohol, expressed here as alcohol by volume (alc/vol), varies within and across beverage types. Although the standard drink amounts are helpful for following health guidelines, they may not reflect customary serving sizes.
Alcohol Use Disorder – DSM-5 Criteria

- Alcohol used in larger amounts or over a longer period of time than intended
- Persistent desire or unsuccessful attempts to cut down or control alcohol use
- Significant time spent obtaining, using, and recovering from the effects of alcohol
- Craving to use alcohol
- Recurrent alcohol use leading to failure to fulfill major role obligations at work, school, or home
- Recurrent use of alcohol, despite having persistent or recurring social or interpersonal problems caused or worsened by alcohol
- Recurrent alcohol use despite having persistent or recurring physical or psychological problems caused or worsened by alcohol
- Giving up or missing important social, occupational, or recreational activities due to alcohol use
- Recurrent alcohol use in hazardous situations
- Tolerance
- Withdrawal

Mild: 2-3 symptoms
Moderate: 4-5 symptoms
Severe: 6+ symptoms
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Impact on home and work life, relationships, activities

Mild: 2-3 symptoms
Moderate: 4-5 symptoms
Severe: 6+ symptoms
Addiction is a chronic brain disease

• Loss of control
• Compulsive use
• Continued use despite harm

### Summary of Recommendations and Evidence

<table>
<thead>
<tr>
<th>Population</th>
<th>Recommendation</th>
<th>Grade (What's This?)</th>
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</thead>
<tbody>
<tr>
<td>Adults aged 18 and older</td>
<td>The USPSTF recommends that clinicians screen adults aged 18 years or older for alcohol misuse and provide persons engaged in risky or hazardous drinking with brief behavioral counseling interventions to reduce alcohol misuse</td>
<td>B</td>
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</table>
Single item screening

• “Do you sometimes drink beer, wine, or other alcoholic beverages?”
  • If yes, “How many times in the past year have you had five (four for women and men > 65) or more drinks in a day?”

Additional Screening

• CAGE
  • 1 positive answer should lead to further probing

• AUDIT-C
  • How often do you have a drink containing alcohol?
  • How many standard drinks containing alcohol do you have on a typical day?
  • How often do you have 6 or more drinks on 1 occasion?
  • Probe beyond the screening questions if positive: “Has your use of alcohol caused any problems for you?”
  • Employment, social, relationship, legal, health

Patients

• DM
  • ~28 drinks/week (likely more)
  • No social, legal, medical, or work consequences

Risky alcohol use

• RW:
  • ~42 drinks/week
  • DUI and employment issues
  • Shakes when not using alcohol
  • Strong alcohol cravings

Alcohol use disorder (severe)
Treatment

• Brief intervention
• Medications
• Medical detoxification
• Psychosocial interventions
Stages of change

- Precontemplation: does not recognize the need for change or is not actively considering change.
- Contemplation: recognizes problem and is considering change.
- Preparation/Action: has initiated change.
- Maintenance: is adjusting to change and is practicing new skills and behaviors to sustain change.
- Relapse: has relapsed to drug use.

LONG-TERM ABSTINENCE

Patients

• “I don’t really drink that much and I’ve never had any problems.”
  - DM
  
  **Precontemplative**

• “My liver is pretty serious and now that I’m cured of hepatitis C I want to make sure it gets healthy.”
  - RW

  **Contemplative/Preparation**
Brief Intervention

• Effective in primary care settings for risky alcohol use and mild alcohol use disorder
• Repeated interventions > single episode
• Data is less convincing for inpatients and patients in the ED
  • May be confounded by relative severity of alcohol use disorder in these populations

• Who delivers the intervention?
  • PCPs (best evidence)
  • Nurses, psychologists, social workers, behavioral health specialists

Brief Intervention

• Draw discrepancy between situation and goals

• Provide clear advice

• Therapeutic empathy

Pharmacotherapy for Alcohol Use Disorder
Alcohol Use Disorder Pharmacotherapy

• Modulation of neurotransmitter systems involved in alcohol use disorder

• Naltrexone
• Acamprosate
• Disulfiram
Oral Naltrexone reduces heavy drinking similarly to targeted behavioral therapy

<table>
<thead>
<tr>
<th>Treatment</th>
<th>Odds Ratio (95% CI)</th>
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<tr>
<td>Placebo Naltrexone/No CBI</td>
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<td>Placebo Naltrexone/CBI</td>
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<td>Naltrexone/CBI</td>
<td>1.93 (1.33-2.80)</td>
</tr>
<tr>
<td>Naltrexone/No CBI</td>
<td>2.16 (1.46-3.20)</td>
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</table>

CBI = Combined Behavioral Intervention – 20 x 50 min counseling sessions delivered by behavioral health specialists

Anton RF et al. JAMA 2006.
Oral Naltrexone – Return to heavy drinking significantly reduced

<table>
<thead>
<tr>
<th>Source</th>
<th>Duration, wk</th>
<th>Risk of Bias</th>
<th>Events, No.</th>
<th>No Events, No.</th>
<th>Events, No.</th>
<th>No Events, No.</th>
<th>Risk Difference (95% CI)</th>
<th>Favors Treatment</th>
<th>Favors Control</th>
<th>Weight, %</th>
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<td>Anton et al, (59) 1999</td>
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<td>32</td>
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<td>-0.18 (-0.37 to 0.02)</td>
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<td>3.93</td>
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</tbody>
</table>

Subtotal: \(I^2 = 43.7\%; P = .02\) |

-0.09 (-0.13 to -0.04) |

Jonas DE. JAMA 2014.
Injectable Naltrexone – Heavy drinking days reduced by 25%

Naltrexone Prescribing Tips

• 50mg/day dose (oral)
• 380mg q4wks (IM)

• Main side effect: nausea
  • Also: dizziness; hepatitis seen at much higher doses than used for EtOH (>300mg/day) – recommendation to check LFTs periodically

• Contraindicated in patients on opioids

• Stop 72h preoperatively to allow for opioid analgesia
  • Careful with depot formulation
Efficacy of Acamprosate

Comparison: 03 Acamprosate vs Placebo
Outcome: 02 Cumulative abstinence duration (CAD)

<table>
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<tr>
<th>Study</th>
<th>Treatment n</th>
<th>mean(sd)</th>
<th>Control n</th>
<th>mean(sd)</th>
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<td>Besson 1996</td>
<td>55</td>
<td>137.00(147.00)</td>
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<td>61.00(70.00)</td>
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<td>Paille 1995</td>
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<td>Whitworth 1996</td>
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<td>183.00(235.00)</td>
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<td>47.00(1.20,92.80)</td>
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Total: (95%CI) 1195 | 1027
Test for heterogeneity chi-square=6.71 df=6 p=0.35
Test for overall effect z=5.79 p=0.00001

Acamprosate Prescribing Tips

• 666mg (2 tabs) TID
  • Dosing frequency may present challenge for adherence
• Primary side effect: Diarrhea
• Contraindicated if CrCl < 30 ml/min
Disulfiram

• Effective if taken under controlled setting
• Placebo-controlled trials have not shown clear improvement

• 250mg/day dosage
• Contraindicated w/ EtOH use, metronidazole, severe CAD
Medical detoxification

• Can be accomplished inpatient or outpatient
• Patients with history of severe withdrawal or at risk for severe withdrawal should be treated inpatient
• Outpatient detox requires close oversight (daily)
Self-help Groups and Inpatient Treatment

• Intensive referral to AA appears most effective

• Residential treatment is a reasonable option if available

• Great variability between inpatient programs

Resources for Referral in Alcohol Use Disorder

- [www.aa.org](http://www.aa.org)
  - Includes meetings by zip code

- [www.smartrecovery.org](http://www.smartrecovery.org)
  - Secular alternative with meetings by location

  - Secular alternative with newsletter

- SAMHSA website

- Local hospital inpatient units
Patient RW

• Occasional AA meetings but sporadic, no sponsor; rare NA meetings
• Sees linkage between health and alcohol (liver damage from HCV and alcohol, friends with alcoholic pancreatitis)

• ED visit for alcohol intoxication, initially reticent to discuss but then admits increased intake
• Inpatient detox
• Started on disulfiram per pt preference, reported 90 days sobriety from alcohol
  • **The most effective medication may be the one the patient believes in
Patient DM

• Discussed linkage between alcohol use, hypertension, and depression, which he was unaware of

• Interested in cutting down but reticent to stop

• Started oral naltrexone

• Self-reports cutting down alcohol use from 48oz to 24oz beer/day since starting medication
Learning Objectives

• Understand the terminology used to describe unhealthy alcohol use
• Identify means of screening for alcohol use disorder
• Describe the utility of brief primary care-based interventions for unhealthy alcohol use
• Achieve familiarity with FDA-approved medications for alcohol use disorder
References


