



# Unhealthy Alcohol and Drug Use Adult, Primary Care, Clinical Practice Guideline

---

D-H GUIDELINE ENDORSEMENT STATEMENT .....	2
Introduction.....	2
Algorithm: Recognizing and Managing Alcohol and Substance Use Disorders in Primary Care .....	3
Patient Identification .....	4
Interventions .....	5
Follow-up/Relapse Prevention .....	6
References.....	9
Appendices .....	10

## Guideline Contact:

Charles Brackett, MD, MPH

Email: [Charles.D.Brackett@hitchcock.org](mailto:Charles.D.Brackett@hitchcock.org) or [knowledge.map@hitchcock.org](mailto:knowledge.map@hitchcock.org)

## Guideline Adoption Statement Sources:

[MA-SBIRT \(Massachusetts Screening, Brief Intervention and Referral to Treatment\) Clinician's Toolkit<sup>3</sup>](#)

[Helping Patients Who Drink Too Much: A Clinician's Guide<sup>2</sup>](#)

[Facing Addiction in America: The Surgeon General's Report on Alcohol, Drugs and Health<sup>1</sup>](#)

## D-H Review and Adoption Committee:

### Psychiatry:

Matt Duncan, MD (Lebanon)

Will Torrey, MD (Lebanon)

Don West, MD (Lebanon)

Mark McGovern, PhD (Lebanon)

### Primary Care:

Andrew Tremblay, MD (Keene)

Timothy Burdick, MD (Manchester)

Virginia Alvord, MD (Lebanon)

## Scope:

This guideline is intended to support primary care clinicians and behavioral health clinicians embedded in primary care in their efforts to optimally identify, assess, triage and manage adult patients with unhealthy alcohol and drug use in a Collaborative Care Model in the ambulatory setting and to clarify D-H clinical standards for this work.

**Approval Body:** D-H Knowledge Map™

**Release Date:** February 2017

---

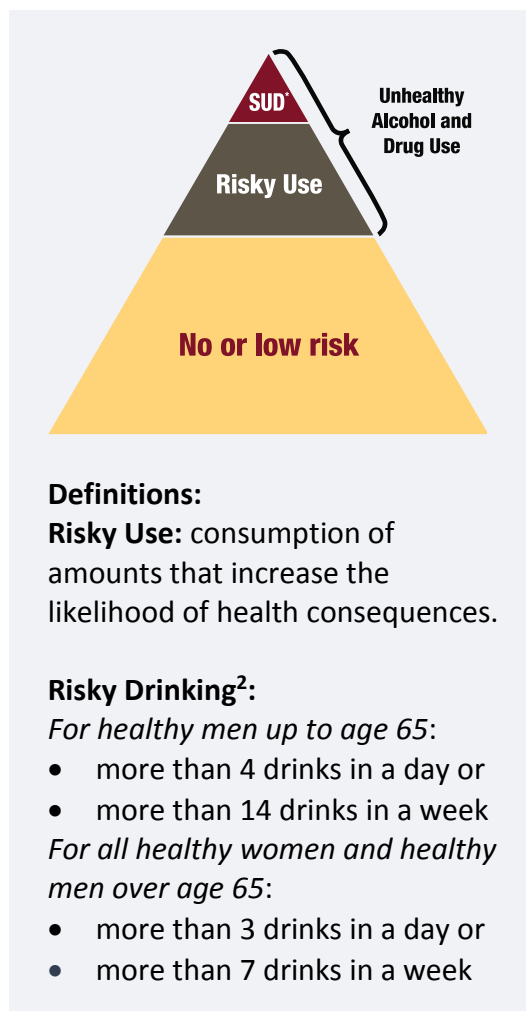
# D-H GUIDELINE ENDORSEMENT STATEMENT

## Introduction 1

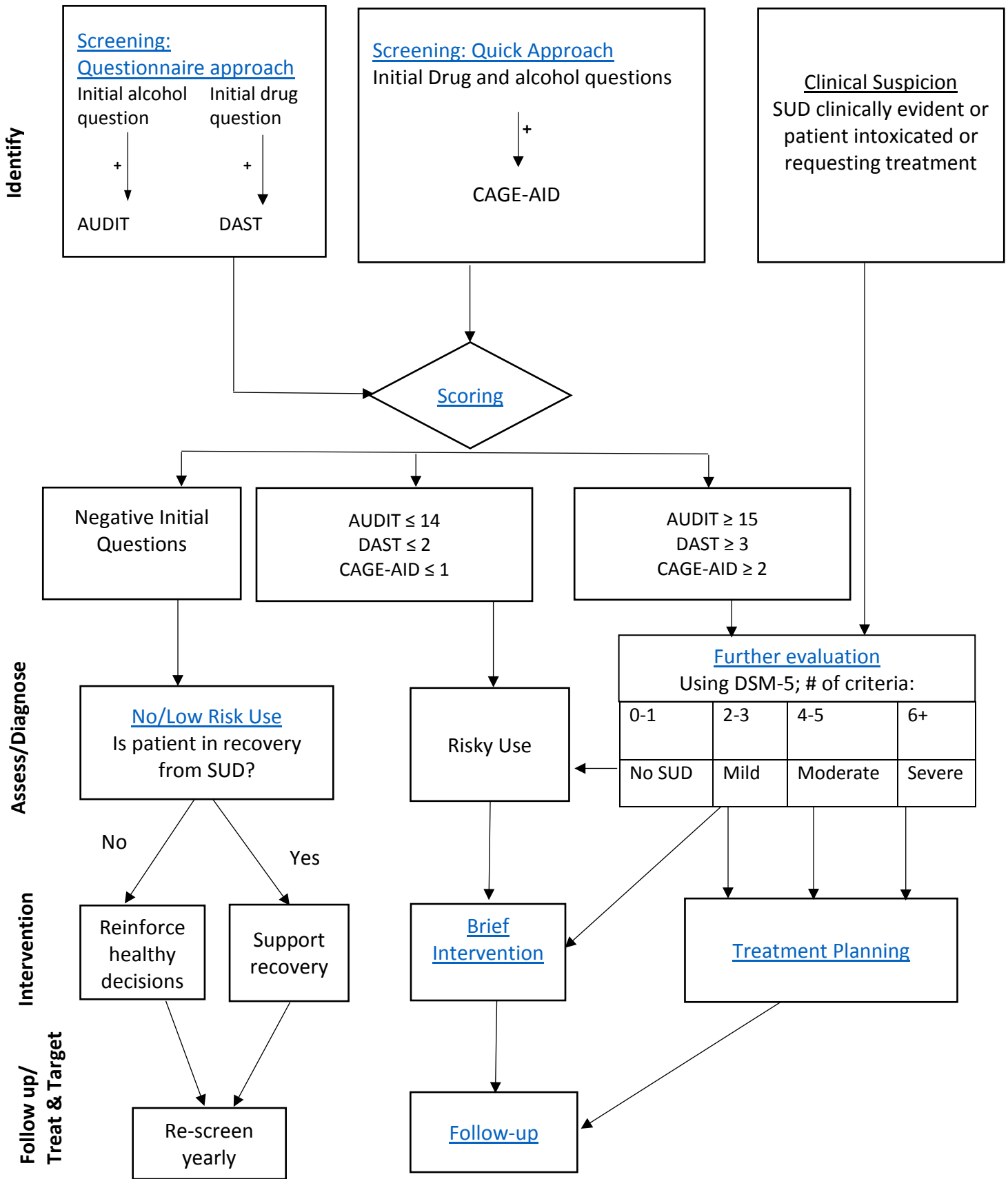
Substance use (alcohol and drug) occurs on a continuum from no use or low risk use to substance use disorders (SUDs). Risky use and SUDs exact an enormous toll on individuals, families, and communities. The number of Americans with a SUD is comparable to the number diagnosed with diabetes and 1.5 times the prevalence of all cancers combined.<sup>4,5</sup> This doesn't include the millions using substances in an unhealthy way who are at greater risk of harm to themselves and others, and are at risk of progressing to a SUD. Despite the scale of the problem, these health conditions receive less research investment, coverage in clinical training, and clinical attention than do other chronic illnesses.

Addiction is a chronic disease of the brain affecting the reward system, learning, stress, decision making, and self-control- not simply a choice or personal failing.<sup>6</sup> These changes help explain why individuals with addiction are unable to stop using drugs or alcohol despite negative consequences, and why the risk of relapse persists long after discontinuing use. As with other chronic relapsing medical conditions, evidence-based treatment (both medication and counseling) is effective in managing the symptoms of SUDs and reducing risk of relapse- yet only 1 in 10 people with a SUD receive treatment.<sup>7</sup> Reasons for this treatment gap include limited access to care, shame or stigma, and lack of recognition by clinicians. Integrating SUD treatment into general medical settings is key to addressing this gap, and recent changes in health policy and coverage are designed to encourage this. With support of a multidisciplinary team, primary care clinicians can treat mild-moderate SUDs in an integrated approach with the mental and physical health issues that commonly co-occur with them. Severe disorders can be treated by specialists using a chronic care model coordinated with primary care. Screening can identify risky use and mild SUD, where brief intervention and follow-up are effective in reducing risk and progression.

This document summarizes a primary care approach to the detection and management of risky alcohol and drug use and SUDs. It is meant to be a brief overview, and the reader is referred to the source documents for further details.



# Algorithm: Recognizing and Managing Alcohol and Substance Use Disorders in Primary Care



## Patient Identification

A SUD may be suspected based on patient presentation (signs of intoxication or medical, social, or occupational consequences of substance use) or a patient requesting treatment. A potential SUD should also be investigated in patients prescribed controlled substances if there are:

- Multiple controlled substances or multiple prescribers, which may be identified through the Prescription Drug Monitoring System (PDMP)<sup>8</sup>
- Discordant results on urine toxicology testing<sup>8</sup>
- Taking or craving more drug than prescribed or difficulty controlling use (including requests for early refills or reporting lost medications)<sup>8</sup>
- High opioid dosage (>50 mg morphine/day or equivalent (33mg oxycodone))<sup>8</sup>
- Depression, Anxiety, PTSD or history of SUD<sup>8</sup>

Because SUDs often go unrecognized, screening is recommended. We recommend 2 strategies (questionnaire and screening approach, below):

### Screening: Questionnaire Approach (preferred)

Electronic health record based electronic questionnaires are administered yearly, and generate a report that includes patient's score and clinical interpretation. Positive responses to initial questions (see below in Quick Approach) trigger more in-depth (10 question) surveys: [AUDIT](#) for alcohol and [DAST](#) for other substance use. AUDIT score  $\geq 6$  or DAST  $\geq 1$  will trigger best practice advisories in eDH with decision support and resources.

### Screening: Quick Approach- an easy to memorize approach when questionnaires aren't used

Ask about alcohol and drug use:

- Do you sometimes drink beer, wine or other alcoholic beverages? If yes, how many times in the past year have you had 5 or more drinks (4 or more for all women or men over 65) in a day? (one drink=12oz beer, 5oz wine or 1.5 oz spirits).
- In the past year have you used an illegal drug or used a prescription medication for non-medical reasons?

If answer is one or more to the first question or "yes" to the second question, use the CAGE-AID (CAGE-Adapted to Include Drugs) to assess for risk of SUD:

- Have you ever felt that you ought to **Cut Down** on your drinking or drug use?
- Have people **Annoyed** you by criticizing your drinking or drug use?
- Have you ever felt bad or **Guilty** about your drinking or drug use?
- Have you ever had a drink or used drugs first thing in the morning (**Eye-Opener**) to steady your nerves or get rid of a hangover?

Score one point for each positive response.

**Scoring of Screening Instruments:** 3 outcomes determine next steps (below)

- Negative Initial Questions → No/Low Risk → Reinforce healthy decisions/support recovery
- AUDIT  $\leq 14$ , DAST  $\leq 2$ , CAGE-AID  $\leq 1$  → Risky Use → Brief Intervention
- AUDIT 15-19, DAST 3-5, CAGE-AID  $\geq 2$  → Further Evaluation
- AUDIT  $\geq 20$  or DAST  $\geq 6$  → moderate to severe SUD probable, further evaluation and treatment

## Further Evaluation: Assessment for a Substance Use Disorder Using DSM-5

[DSM-5](#) defines SUD as meeting 2 or more of the adapted criteria below.

- Taking substance more or longer than intended
- Inability to cut down or stop
- Spending a lot of time getting/using/recovering
- Cravings and urges
- Not meeting responsibilities at home, work, school
- Continued use despite causing problems in relationships
- Giving up important social, occupational, recreational activities
- Recurrent use leading to danger
- Continued use when causing or worsening a physical or psychological problem
- Tolerance (needing more to get same effect)
- Withdrawal symptoms relieved by taking more

Number of criteria:    0-1            2-3            4-5            6+  
Interpretation:        No SUD    Mild SUD    Moderate SUD    Severe SUD

## Interventions

### No/Low Risk

For alcohol, advise staying within the healthy drinking limits. Recommend lower limits or abstinence if the patient has a health condition exacerbated by alcohol or takes medications that interact with alcohol. Advise against drinking during pregnancy.

*If the patient is in recovery from past SUD:* congratulate them, ask how long they have been in recovery, ask whether they attend support groups or need counseling/support.

### Brief Intervention (BI) for Risky Substance Use

A BI is a conversation with a patient using education and motivational interviewing techniques (see p 22-25 [MA-SBIRT](#)) to enhance a patient's motivation to change their substance use. For risky use or mild SUD, the goal is to reduce (to healthy drinking limits) or eliminate use (for illicit drugs, or consequences from or inability to cut down on alcohol). The Brief Negotiated Interview approach used in MA-SBIRT is summarized here. The [NIAAA Clinician's Guide](#) uses a more directive approach.

**BI Steps** (see p 9-10 and 20-21 [MA-SBIRT](#) and these [videos](#) for more detail)

1. Understand the patient's views of use
  - Develop discrepancy between patient's goals and values and actual behavior
2. Give information/feedback
  - Ask permission to give feedback. Share AUDIT/DAST/CAGE-AID scores and responses.
  - Explore possible connections to health problems.
  - Review healthy drinking limits (if focus is on risky alcohol use and abstinence is not indicated)
  - Use reflective listening and other motivational interviewing techniques
3. Enhance motivation
  - Ask about pros and cons of alcohol/drug use
  - Ask readiness and confidence for making changes, using 0-10 scale
4. Give advice and negotiate goal
  - Review concerns, summarize pros/cons
  - Ask what the patient is ready to do now
  - Offer clear advice to cut back or eliminate use

Close: Thank patient, offer [written](#) or [web](#) educational resources, negotiate follow-up

## Treatment Planning for Substance Use Disorder

For patients with a SUD, the communication techniques of the BI are used to motivate patients to both eliminate use and seek further help. The treatment plan depends on severity of SUD, comorbidities, social context, resources, clinician judgment and patient preference. Many patients can be managed in primary care with medication assisted treatment (MAT- see below), self-management tools, mutual help groups, counseling, and frequent follow-up with the PCP and other primary care personnel. Consider referral for additional evaluation and treatment by an addiction specialist or program for more complex patients and those not responding to initial approaches. A minority of patients may require medically managed withdrawal (detoxification) from [alcohol](#) or [opiates](#).

### Treatment Options

- [Medication Assisted Treatment for Alcohol](#)
  - Naltrexone (po or monthly injection)
  - Acamprosate
  - Disulfiram
  - [Non FDA approved](#): gabapentin, baclofen, topiramate
- Medication Assisted Treatment for Opiates
  - Buprenorphine: can be prescribed by PCP with a [waiver](#), or through a program.
  - Methadone: requires a licensed program
  - Naltrexone: for highly motivated patients and/or supervised settings, after achieving abstinence. Unlike buprenorphine and methadone, it does not help with withdrawal and craving.
- [Patient Self-Management Resources and Mutual Help Groups](#) (AA, NA, Smart Recovery)
- [Specialty Treatment](#)
  - Outpatient: individual and group counseling, family therapy
  - Intensive Outpatient Programs
  - Inpatient/Residential

## Follow-up/Relapse Prevention

Regular follow-up and a supportive patient-physician relationship can be therapeutic, and brief interventions are more effective when done iteratively over time. Check in about substance use or recovery at each visit.

Was the patient able to meet and sustain their goal?

### **Yes:**

- Reinforce and support continued success
- Encourage patient to return if they lapse from their goal
- Address coexisting medical and psychiatric disorders
- For **Risky Use**: renegotiate drinking goals as indicated, rescreen annually
- For **SUD**: Facilitate involvement in mutual help groups or other counseling, help patients to recognize and cope with relapse precipitants and cravings, coordinate care with specialist if applicable, maintain MAT for a minimum of 3 months of abstinence.

### **No:**

- Acknowledge that change is difficult

- Support positive change and address barriers
- Relate substance use to medical or other problems as appropriate
- Consider engaging significant others
- Renegotiate the goal and plan:
  - **Risky Use:** consider a 2-week trial of abstinence, reassess the diagnosis (inability to cut down or stop is one of the DSM-5 criteria)
  - **SUD:** See relapse as a “learning experience” (what was the relapse trigger? How can it be avoided in the future?). Consider more intensive interventions and address coexisting medical and psychiatric disorders

### Addressing Guideline Controversy:

- Screening Instrument for Unhealthy Drug Use: Several instruments are available, and we debated between the DAST and the ASSIST. We chose the DAST primarily because it was shorter, and was included in the MA-SBIRT model we chose to adopt.
- Brief Intervention Model: We preferred the Brief Negotiated Interview developed at Boston University to the NIAAA model presented in the clinician’s guide, which is based on the 5As approach. The BNI is grounded in Motivational Interviewing, which has been shown more effective than a more directive approach.
- Off-label medications for alcohol use disorder: We debated whether to add off-label drugs to the FDA approved ones in the NIAAA table (Appendix 1). Although the evidence is preliminary, the off label medications included may have higher effect sizes, are commonly used by addiction specialists, are more familiar to PCPs, and are usually less expensive than the FDA approved options. AUD is heterogeneous, and having a larger menu of treatment options is beneficial.

### Implementation Goals and Strategy:

- 1. Clinician Dissemination:**
  - a. Clinical practice guideline posted on Knowledge Map intranet site and sent to D-H clinicians
  - b. Training on Screening and Brief Intervention (SBIRT) will precede rollout of alcohol and drug screening
  - c. Update DH Preventive Care clinical practice guideline with recommendations for behavioral health screening tools, including frequency and score cut-offs
  - d. A primary care clinician “Behavioral Health Playbook” that synthesizes the roles, tasks, workflows and treatment algorithms for behavioral health disorders
- 2. Clinical Support:**
  - a. A “one stop” website to support clinicians addressing behavioral health issues
- 3. Patient Education and Resources**
  - a. Patient facing website for education and resources for all behavioral health issues
  - b. Patient resources are also in the appendices and hyperlinks of this document, and will be embedded in eDH tools (see below)
- 4. Behavioral Health Clinician/Case Manager/Nurse-supported Behavioral Health Care:**
  - a. Care pathway for Nurses
  - b. Training for nurses without behavioral health/substance use care delivery experience
- 5. EHR Tools (to be built in eDH):**
  - a. Best Practice Alert (BPA) for Alcohol Use Disorder, triggered by AUDIT score $\geq$ 6
  - b. BPA for Substance Use Disorder, triggered by DAST $\geq$ 1

Both BPA's will link to Smartsets, which include decision support, medications, referrals, patient information and other resources.

#### 6. Clinical Performance Measures:

- a. Process Measures: Percent of eligible patients screened, outreach calls by care manager, percent of patients diagnosed with SUD who have a documented follow-up plan (HEDIS), % who have initiated treatment within 14 days of diagnosis (HEDIS), % with 2 or more visits within 30 days of initiating treatment (HEDIS)
- b. Outcome Measures: Percent of patients with positive screening scores who are abstinent (no drinks in past 7d) at 3 months from initial diagnosis, % of patients improving as measured by the Brief Addiction Monitoring (BAM) instrument<sup>9,10</sup> (numeric cutoffs to be determined by D-H Expert Opinion)

#### Pertinent Links

Unhealthy Alcohol and Drug Use Adult, Primary Care Clinical Practice Guideline Pocket Guide

[http://sitefinity.hitchcock.org/intranet/docs/default-source/d-h-knowledge-map-documents/sud\\_pocketguide2\\_6\\_17.pdf?sfvrsn=2](http://sitefinity.hitchcock.org/intranet/docs/default-source/d-h-knowledge-map-documents/sud_pocketguide2_6_17.pdf?sfvrsn=2)

Unhealthy Alcohol and Drug Use Adult, Primary Care Clinical Practice Guideline Brief

[http://sitefinity.hitchcock.org/intranet/docs/default-source/d-h-knowledge-map-documents/sud\\_brief\\_2\\_6\\_16.pdf?sfvrsn=2](http://sitefinity.hitchcock.org/intranet/docs/default-source/d-h-knowledge-map-documents/sud_brief_2_6_16.pdf?sfvrsn=2)

D-H Depression Management Guideline

[http://sitefinity.hitchcock.org/intranet/docs/default-source/d-h-knowledge-map-documents/depression\\_cpg\\_final.pdf?sfvrsn=2](http://sitefinity.hitchcock.org/intranet/docs/default-source/d-h-knowledge-map-documents/depression_cpg_final.pdf?sfvrsn=2)

D-H Behavioral Health Integration into Primary Care Model Guideline

<http://sitefinity.hitchcock.org/intranet/docs/default-source/d-h-knowledge-map-documents/behavioral-health-integration-guideline-final.pdf?sfvrsn=2>

#### Qualifying Statements

Pathways & Guidelines: Clinical Practice Guideline and pathways are designed to assist clinicians by providing a framework for the evaluation and treatment of patients. This Clinical Practice Guideline outlines the preferred approach for most patients. It is not intended to replace a clinician's judgment or to establish a protocol for all patients. It is understood that some patients will not fit the clinical condition contemplated by a guideline and that a guideline will rarely establish the only appropriate approach to a problem.

#### Copyright, citation, use, and adoption limitation/instructions:

May not be reproduced, distributed or modified for sale. May not be loaded into software platform outside of D-H in whole or in part without explicit permission.

If modified for local use, cite as:

*Adapted from Dartmouth-Hitchcock Knowledge Map™ Unhealthy Alcohol and Drug Use, Adult, Primary Care Clinical Practice Guideline. Copyright 2017.*

#### References



1. U.S. Department of Health and Human Services (HHS), Office of the Surgeon General. *Facing Addiction in America: The Surgeon General's Report on Alcohol, Drugs, and Health*. Washington, DC: HHS, November 2016.
2. *Helping Patients Who Drink Too Much A Clinician's Guide*. U.S. Department of Health and Human Services, National Institutes of Health, National Institute on Alcohol Abuse and Alcoholism.;2005.
3. *SBIRT: A Step-By-Step Guide for Screening and Intervening for Unhealthy Alcohol and Other Drug Use*. Massachusetts's Department of Public Health;2012.
4. Centers for Disease Control and Prevention. Number (in millions) of civilian, non-institutionalized persons with diagnosed diabetes, United States, 1980-2014. <http://www.cdc.gov/diabetes/statistics/prev/national/figpersons.htm>. 2015. Accessed December, 2016.
5. National Cancer Institute Surveillance, Epidemiology, and End Results Program. SEER stat fact sheets: cancer of any site. <http://seer.cancer.gov/statfacts/html/all.html>. Accessed December, 2016.
6. Botticelli MP, Koh HK. Changing the Language of Addiction. *Jama*. 2016;316(13):1361-1362.
7. Substance Abuse and Mental Health Services Administration, Center for Behavioral Health Statistics and Quality. Results from the 2015 national survey on drug use and health: detailed tables. <http://www.samhsa.gov/data/sites/default/files/NSDUH-DetTabs-2015/NSDUH-DetTabs-2015/NSDUH-DetTabs-2015.pdf>. 2016. Accessed December, 2016.
8. Dowell D, Haegerich TM, Chou R. CDC Guideline for Prescribing Opioids for Chronic Pain--United States, 2016. *Jama*. 2016;315(15):1624-1645.
9. Nelson KG, Young K, Chapman H. Examining the performance of the brief addiction monitor. *Journal of substance abuse treatment*. 2014;46(4):472-481.
10. Cacciola JS, Alterman AI, Dephilippis D, et al. Development and initial evaluation of the Brief Addiction Monitor (BAM). *Journal of substance abuse treatment*. 2013;44(3):256-263.
11. Addolorato G, Leggio L, Abenavoli L, et al. Baclofen in the treatment of alcohol withdrawal syndrome: a comparative study vs diazepam. *The American journal of medicine*. 2006;119(3):276.e213-278.
12. Addolorato G, Leggio L, Ferrulli A, et al. Effectiveness and safety of baclofen for maintenance of alcohol abstinence in alcohol-dependent patients with liver cirrhosis: randomised, double-blind controlled study. *Lancet (London, England)*. 2007;370(9603):1915-1922.
13. Myrick H, Malcolm R, Randall PK, et al. A double-blind trial of gabapentin versus lorazepam in the treatment of alcohol withdrawal. *Alcoholism, clinical and experimental research*. 2009;33(9):1582-1588.
14. Mason BJ, Quello S, Goodell V, Shadan F, Kyle M, Begovic A. Gabapentin treatment for alcohol dependence: a randomized clinical trial. *JAMA internal medicine*. 2014;174(1):70-77.
15. Johnson BA, Swift RM, Ait-Daoud N, DiClemente CC, Javors MA, Malcolm RJ, Jr. Development of novel pharmacotherapies for the treatment of alcohol dependence: focus on antiepileptics. *Alcoholism, clinical and experimental research*. 2004;28(2):295-301.
16. Johnson BA, Ait-Daoud N, Bowden CL, et al. Oral topiramate for treatment of alcohol dependence: a randomised controlled trial. *Lancet (London, England)*. 2003;361(9370):1677-1685.
17. Baltieri DA, Daro FR, Ribeiro PL, de Andrade AG. Comparing topiramate with naltrexone in the treatment of alcohol dependence. *Addiction (Abingdon, England)*. 2008;103(12):2035-2044.

## Appendices

### Appendix 1: Medication Assisted Treatment for Alcohol (FDA approved)

(see NIAAA Guide p13-23 for details)

	Naltrexone (Depade <sup>®</sup> , ReVia <sup>®</sup> )	Extended Release Injectable Naltrexone (Vivitrol <sup>®</sup> )	Acamprosate (Campral <sup>®</sup> )	Disulfiram (Antabuse <sup>®</sup> )
<b>Action</b>	Blocks opioid receptors, resulting in reduced craving and reduced reward in response to drinking.	Same as oral naltrexone, 30–day duration.	Affects glutamate and GABA neurotransmitter systems, but its alcohol-related action is unclear.	Inhibits intermediate metabolism of alcohol causing a buildup of acetaldehyde and reaction of flushing, sweating, nausea, and tachycardia if a patient drinks alcohol.
<b>Contraindications</b>	Currently using opioids or in acute opioid withdrawal; anticipated need for opioid analgesics; acute hepatitis or liver failure.	Same as oral naltrexone, plus inadequate muscle mass for deep intramuscular injection; rash or infection at the injection site.	Severe renal impairment (CrCl ≤ 30 mL/min).	Concomitant use of alcohol or alcohol-containing preparations or metronidazole; coronary artery disease; severe myocardial disease; hypersensitivity to rubber (thiuram) derivatives.
<b>Precautions</b>	Other hepatic disease; renal impairment; history of suicide attempts or depression. If opioid analgesia is needed, larger doses may be required and respiratory depression may be deeper and more prolonged. Pregnancy Category C. Advise patients to carry a wallet card to alert medical personnel in the event of an emergency. For wallet card information, see <a href="http://www.niaaa.nih.gov/guide">www.niaaa.nih.gov/guide</a> .	Same as oral naltrexone, plus hemophilia or other bleeding problems.	Moderate renal impairment (dose adjustment for CrCl between 30 and 50mL/min); depression or suicidal ideation and behavior. Pregnancy Category C.	Hepatic cirrhosis or insufficiency; cerebrovascular disease or cerebral damage; psychoses (current or history); diabetes mellitus; epilepsy; hyperthyroidism; renal impairment. Pregnancy Category C. Advise patients to carry a wallet card to alert medical personnel in the event of an emergency. For wallet card information, see <a href="http://www.niaaa.nih.gov/guide">www.niaaa.nih.gov/guide</a> .
<b>Serious adverse reactions</b>	Will precipitate severe withdrawal if the patient is dependent on opioids; hepatotoxicity (although does not appear to be a hepatotoxin at the recommended doses).	Same as oral naltrexone, plus infection at the injection site; depression; and rare events including allergic pneumonia and suicidal ideation and behavior.	Rare events include suicidal ideation and behavior.	Disulfiram-alcohol reaction, hepatotoxicity, optic neuritis, peripheral neuropathy, psychotic reactions.
<b>Common side effects</b>	Nausea, vomiting, decreased appetite, headache, dizziness, fatigue, somnolence, anxiety.	Same as oral naltrexone, plus a reaction at the injection site; joint pain; muscle aches or cramps.	Diarrhea, somnolence.	Metallic after-taste, dermatitis, transient mild drowsiness.
<b>Examples of drug interactions</b>	Opioid medications (blocks action).	Same as oral naltrexone.	No clinically relevant interactions known.	Anticoagulants such as warfarin; isoniazid; metronidazole; phenytoin; any nonprescription drug containing alcohol.
<b>Usual adult dosage</b>	<b>Oral dose:</b> 50 mg daily. <b>Before prescribing:</b> Patients must be opioid-free for a minimum of 7 to 10 days before starting. If you feel that there's a risk of precipitating an opioid withdrawal reaction, administer a naloxone challenge test. Evaluation liver function. <b>Laboratory followup:</b> Monitor liver function.	<b>IM dose:</b> 380 mg given as a deep intramuscular gluteal injection, once monthly. <b>Before prescribing:</b> Same as oral naltrexone, plus examine the injection site for adequate muscle mass and skin condition. <b>Laboratory followup:</b> Monitor liver function.	<b>Oral dose:</b> 666 mg (two 333-mg tablets) three times daily; <b>or</b> for patients with moderate renal impairment (CrCl 30 to 50 mL/min), reduce to 333 mg (one tablet) three times daily. <b>Before prescribing:</b> Evaluate renal function. Establish abstinence.	<b>Oral dose:</b> 250 mg daily (range 125 mg to 500 mg). <b>Before prescribing:</b> Evaluate liver function. Warn the patient (1) not to take disulfiram for at least 12 hours after drinking and that a disulfiram–alcohol reaction can occur up to 2 weeks after the last dose and (2) to avoid alcohol in the diet (e.g., sauces and vinegars), over the counter medications (e.g., cough syrups), and toiletries (e.g., cologne, mouthwash). <b>Laboratory followup:</b> Monitor liver function.

## Appendix 2: Medication Assisted Treatment for Alcohol (off label/not FDA approved)

- Baclofen: GABA agonist, decreases withdrawal symptoms,<sup>11</sup> decreases alcohol consumption and craving, and may help anxiety.<sup>12</sup>
  - 10-20mg tid, potentially higher (up to 300mg/day is being studied)
  - Side effects: sedation, respiratory depression, psychiatric disturbance
  - Safe in liver disease
  - Felt not to have any abuse potential
  - Least expensive of the options (Walmart \$4 list)
- Gabapentin: structurally similar to GABA, but doesn't bind to receptor (mechanism unclear). Decreases withdrawal symptoms<sup>13</sup>, improves insomnia, dysphoria and craving, and reduces alcohol consumption.<sup>14</sup>
  - 300 tid→600 tid (600 more effective)
  - Side effects: sedation and dizziness, but dangerous side effects unlikely
  - Safe in liver disease
  - Some concern for abuse potential
- Topiramate: modulates GABA and glutamatergic activity, decreases craving and alcohol consumption.<sup>15,16</sup> Better than naltrexone in one RCT.<sup>17</sup>
  - 25 qd, increase by 25mg/week to 100- 150mg BID (or 200-300 once daily ER)
  - Side effects: metabolic acidosis, renal stones, psychomotor slowing, somnolence

## Appendix 3: Patient Self-Management Resources and Mutual Support Groups

Note: these are being vetted by a patient group, and will be revised

- Alcoholics Anonymous: [www.aa.org](http://www.aa.org)
- Narcotics Anonymous: <http://na.org/>
- Self-Management Addiction Recovery Program: [www.smartrecovery.org](http://www.smartrecovery.org)
- Digital device Applications (Apps)
  - A-CHESS: developed by researchers at the University of Wisconsin as a continuing relapse prevention support for those in recovery from alcoholism and alcohol use disorders, after they leave treatment
  - recoveryBox- for a range of addictions
  - Sober Grid
  - 12 Steps AA Companion

## Appendix 4: Treatment Options

- [http://www.dartmouth-hitchcock.org/alcohol\\_drug.html](http://www.dartmouth-hitchcock.org/alcohol_drug.html) DH guide to options in NH and VT, arranged by treatment intensity
- <http://nhtreatment.org/> Recent comprehensive guide to options in NH
- <https://findtreatment.samhsa.gov/> National directory
- [www.addictionrecoveryguide.org](http://www.addictionrecoveryguide.org) National directory, also with other information and resources for the patient and their family
- [www.uvmentalhealth.org](http://www.uvmentalhealth.org) Upper Valley resources for all behavioral health issues
- [www.uvalltogether.org](http://www.uvalltogether.org), includes a "[Consumer's Guide to Substance Use Treatment](#)" Upper Valley resources, including pdf booklet (print copies available to stock in clinic)
- Substance related crises 1-844-711-4357 (HELP)
- 211 <http://www.vermont211.org/> <http://www.211nh.org/>
- Decisions in Recovery: Treatment for Opioid Use Disorder. A patient handbook discussing MAT options <http://store.samhsa.gov/shin/content/SMA16-4993/SMA16-4993.pdf>