Updated

Helping Patients Who Drink Too Much

A CLINICIAN'S GUIDE

Updated 2005 Edition

U.S. DEPARTMENT OF HEALTH & HUMAN SERVICES
National Institutes of Health
National Institute on Alcohol Abuse and Alcoholism

New Supporting Materials

2005 Edition

Table of Contents

Introduction 1

What's the Same, What's New in This Update 2

Before You Begin 3

How to Help Patients Who Drink Too Much: A Clinical Approach

Step 1: Ask About Alcohol Use 4

Step 2: Assess for Alcohol Use Disorders 5

Step 3: Advise and Assist
At-Risk Drinking 6
Alcohol Use Disorders 7

Step 4: At Followup: Continue Support
At-Risk Drinking 6
Alcohol Use Disorders 7

Appendix

Clinician Support Materials 10

Patient Education Materials 24

Online Materials for Clinicians and Patients 27

Frequently Asked Questions 28

Notes 33

. . . men who drink more than 4 standard drinks in a day (or more than 14 per week) and women who drink more than 3 in a day (or more than 7 per week) are at increased risk for alcohol-related problems.

Introduction

This *Guide* is written for primary care and mental health clinicians. It has been produced by the National Institute on Alcohol Abuse and Alcoholism (NIAAA), a component of the National Institutes of Health, with guidance from physicians, nurses, advanced practice nurses, physician assistants, and clinical researchers.

How much is "too much"?

Drinking becomes too much when it causes or elevates the risk for alcohol-related problems or complicates the management of other health problems. According to epidemiologic research, **men who drink more than 4 standard drinks in a day (or more than 14 per week) and women who drink more than 3 in a day (or more than 7 per week) are at increased risk for alcohol-related problems**.[1]

Individual responses to alcohol vary, however. Drinking at lower levels may be problematic depending on many factors, such as age, coexisting conditions, and use of medication. Because it isn't known whether any amount of alcohol is safe during pregnancy, the Surgeon General urges abstinence for women who are or may become pregnant.[2]

Why screen for heavy drinking?

- **At-risk drinking and alcohol problems are common.** About 3 in 10 U.S. adults drink at levels that elevate their risk for physical, mental health, and social problems.[3] Of these heavy drinkers, about 1 in 4 currently has alcohol abuse or dependence.[3] All heavy drinkers have a greater risk of hypertension, gastro-intestinal bleeding, sleep disorders, major depression, hemorrhagic stroke, cirrhosis of the liver, and several cancers.[4]
- **Heavy drinking often goes undetected.** In a recent study of primary care practices, for example, patients with alcohol dependence received the recommended quality of care, including assessment and referral to treatment, only about 10 percent of the time.[5]
- **Patients are likely to be more receptive, open, and ready to change than you expect.** Most patients don't object to being screened for alcohol use by clinicians and are open to hearing advice afterward.[6] In addition, most primary care patients who screen positive for heavy drinking or alcohol use disorders show some motivational readiness to change, with those who have the most severe symptoms being the most ready.[7]
- **You're in a prime position to make a difference.** Clinical trials have demonstrated that brief interventions can promote significant, lasting reductions in drinking levels in at-risk drinkers who aren't alcohol dependent.[8] Some drinkers who are dependent will accept referral to addiction treatment programs. Even for patients who don't accept a referral, repeated alcohol-focused visits with a health care provider can lead to significant improvement.[9,10]

If you're not already doing so, we encourage you to incorporate alcohol screening and intervention into your practice. **With this *Guide*, you have what you need to begin.**

What's the Same, What's New in This Update

Same approach to screening and intervention

The approach to alcohol screening and intervention presented in the original *2005 Guide* remains unchanged. That edition established a number of new directions compared with earlier versions, including a simplified, single-question screening question; more guidance for managing alcohol-dependent patients; and an expanded target audience that includes mental health practitioners, since their patients are more likely to have alcohol problems than patients in the general population.[11,12]

In the "how-to" section, two small revisions are noteworthy. Feedback from *Guide* users told us that some patients do not consider beer to be an alcoholic beverage, so the prescreening question on page 4 now reads, "Do you sometimes drink *beer, wine, or other* alcoholic beverages?" And on page 5, the assessment criteria remain the same, but the sequence now better reflects a likely progression of symptoms in alcohol use disorders.

Updated and new supporting materials

- **Updated medications section.** The section on prescribing medications (pages 13–16) contains added information about treatment strategies and options. It describes a newly approved, extended-release injectable drug to treat alcohol dependence that joins three previously approved oral medications.
- **Medication management support.** Patients taking medications for alcohol dependence require some behavioral support, but this doesn't need to be specialized alcohol counseling. For clinicians in general medicine and mental health settings, the *Guide* now outlines a brief, effective program of behavioral support that was developed for patients who received pharmacotherapy in a recent clinical trial (pages 17–22).
- **Specialized alcohol counseling resource.** For mental health clinicians who wish to provide specialized counseling for alcohol dependence, we've added information about a state-of-the-art behavioral intervention also developed for a recent clinical trial (page 31).
- **Online resources.** A new page on the NIAAA Web site is devoted to the *Guide* and related resources (*www.niaaa.nih.gov/guide*). See page 27 for a sampling of available forms, publications, and training resources.
- **New patient education handout.** "Strategies for Cutting Down" provides concise guidance for patients who are ready to cut back or quit. The handout may be photocopied from page 26 or downloaded from *www.niaaa.nih.gov/guide*, where it is also available in Spanish.
- **Transferred sections.** Two appendix resources from the preceding edition (the sample questions for assessment and the preformatted progress notes for baseline and followup visits) are now available online at *www.niaaa.nih.gov/guide*. The previous "Materials from NIAAA" section is now part of the "Online Materials for Clinicians and Patients" on page 27.

Before You Begin…

Decide on a screening method

The *Guide* provides two methods for screening: a single question (about heavy drinking days) to use during a clinical interview and a written self-report instrument (the AUDIT—see page 11). The single interview question can be used at any time, either in conjunction with the AUDIT or alone. Some practices may prefer to have patients fill out the AUDIT before they see the clinician. It takes less than 5 minutes to complete and can be copied or incorporated into a health history.

Think about clinical indications for screening

Key opportunities include

- As part of a **routine examination**
- Before **prescribing a medication** that interacts with alcohol (see box on page 29)
- In the **emergency department** or urgent care center
- When seeing patients who
  - are **pregnant** or trying to conceive
  - are **likely to drink heavily,** such as smokers, adolescents, and young adults
  - have **health problems that might be alcohol induced,** such as

cardiac arrhythmia	dyspepsia	liver disease
depression or anxiety	insomnia	trauma

  - have a chronic **illness that isn't responding to treatment as expected,** such as

chronic pain	diabetes	gastrointestinal disorders
depression	heart disease	hypertension

Set up your practice to simplify the process

- Decide who will conduct the screening (you, other clinical personnel, the receptionist who hands out the AUDIT)
- Use preformatted progress notes (see "Online Materials" on page 27)
- Use computer reminders (if using electronic medical records)
- Keep copies of the pocket guide (provided) and referral information in your examination rooms
- Monitor your performance through practice audits

How to Help Patients Who Drink Too Much: A Clinical Approach

STEP 1 Ask About Alcohol Use

Prescreen: Do you sometimes drink beer, wine, or other alcoholic beverages?

NO → Screening complete.

YES →

Ask the screening question about heavy drinking days:

How many times in the past year have you had . . .

5 or more drinks in a day? *(for men)*

4 or more drinks in a day? *(for women)*

☐

One standard drink is equivalent to 12 ounces of beer, 5 ounces of wine, or 1.5 ounces of 80-proof spirits—see chart on page 24.

If the patient used a written self-report (such as the AUDIT, p. 11), START HERE →

Is the screening positive?

- 1 or more heavy drinking days or
- AUDIT score of ≥ 8 for men or ≥ 4 for women

NO →

- **Advise staying within these limits:**

  Maximum Drinking Limits

  For healthy **men up to age 65**—
  - no more than **4** drinks in a **day** AND
  - no more than **14** drinks in a **week**

  For healthy **women** (and healthy **men over age 65**)—
  - no more than **3** drinks in a **day** AND
  - no more than **7** drinks in a **week**
- **Recommend lower limits or abstinence** as medically indicated: for example, for patients who
  - take **medications** that interact with alcohol
  - have a **health condition** exacerbated by alcohol
  - are **pregnant** (advise abstinence)
- **Express openness to talking** about alcohol use and any concerns it may raise
- **Rescreen** annually

YES →

- Your patient is an at-risk drinker. For a more complete picture of the drinking pattern, **determine the weekly average:**
  - On average, how many **days** a week do you have an alcoholic drink? ☐
  - X
  - On a typical drinking day, how many **drinks** do you have? ☐

  Weekly average ☐
- **Record heavy drinking days in the past year and the weekly average** in the patient's chart (see page 27 for a downloadable baseline progress note).

GO TO STEP 2

STEP 2 Assess for Alcohol Use Disorders

Next, determine whether there is a *maladaptive pattern of alcohol use*, causing *clinically significant impairment* or *distress*. It is important to assess the severity and extent of all alcohol-related symptoms to inform your decisions about management. The following list of symptoms is adapted from the *Diagnostic and Statistical Manual of Mental Disorders, 4th Edition (DSM-IV), Revised.* Sample assessment questions are available online at *www.niaaa.nih.gov/guide.*

Determine whether, in the past 12 months, your patient's drinking has **repeatedly** caused or contributed to

- ☐ **risk** of bodily harm (drinking and driving, operating machinery, swimming)
- ☐ **relationship** trouble (family or friends)
- ☐ **role failure** (interference with home, work, or school obligations)
- ☐ **run-ins** with the law (arrests or other legal problems)

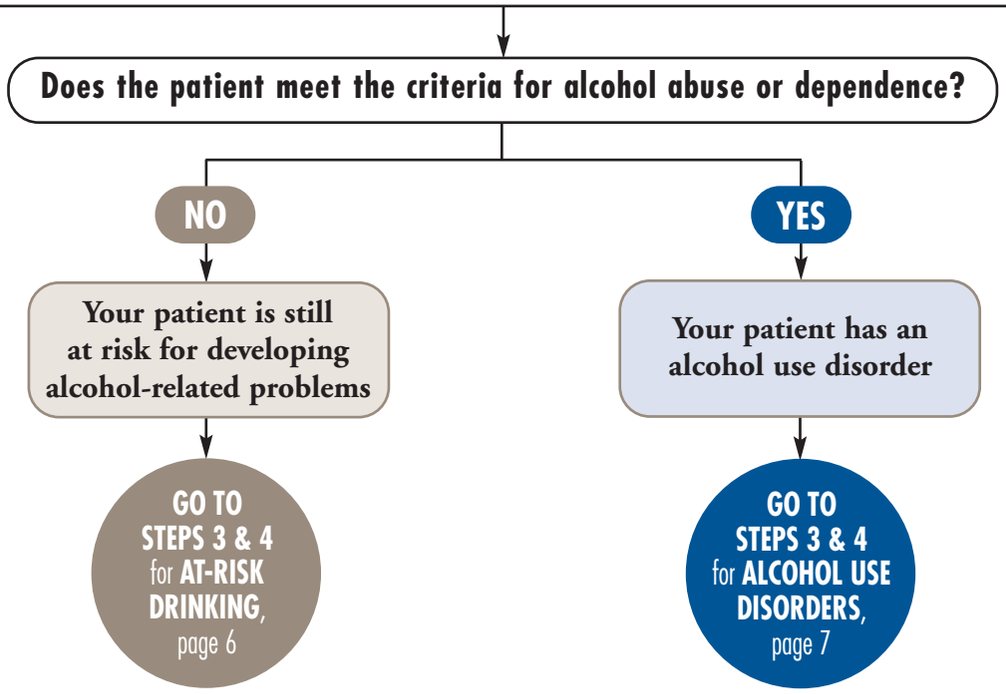
If yes to **one or more** → your patient has **alcohol abuse.**

In either case, proceed to assess for dependence symptoms.

Determine whether, in the past 12 months, your patient has

- ☐ **not been able to stick to drinking limits** (repeatedly gone over them)
- ☐ **not been able to cut down or stop** (repeated failed attempts)
- ☐ **shown tolerance** (needed to drink a lot more to get the same effect)
- ☐ **shown signs of withdrawal** (tremors, sweating, nausea, or insomnia when trying to quit or cut down)
- ☐ **kept drinking despite problems** (recurrent physical or psychological problems)
- ☐ **spent a lot of time drinking** (or anticipating or recovering from drinking)
- ☐ **spent less time on other matters** (activities that had been important or pleasurable)

If yes to **three or more** → your patient has **alcohol dependence.**



AT-RISK DRINKING (no abuse or dependence)

STEP 3 Advise and Assist (Brief Intervention)

- **State your conclusion and recommendation clearly:**
  - "You're drinking more than is medically safe." Relate to the patient's concerns and medical findings, if present. (Consider using the chart on page 25 to show increased risk.)
  - "I strongly recommend that you cut down (or quit) and I'm willling to help." (See page 29 for advice considerations.)
- **Gauge readiness to change drinking habits:**
  "Are you willing to consider making changes in your drinking?"

Is the patient ready to commit to change at this time?

NO

Don't be discouraged—ambivalence is common. Your advice has likely prompted a change in your patient's thinking, a positive change in itself. With continued reinforcement, your patient may decide to take action. For now,

- **Restate your concern** about his or her health.
- **Encourage reflection** by asking patients to weigh what they like about drinking versus their reasons for cutting down. What are the major barriers to change?
- **Reaffirm your willingness to help** when he or she is ready.

YES

- **Help set a goal** to cut down to within maximum limits (see Step 1) or abstain for a time.
- **Agree on a plan,** including
  - what specific steps the patient will take (e.g., not go to a bar after work, measure all drinks at home, alternate alcoholic and nonalcoholic beverages).
  - how drinking will be tracked (diary, kitchen calendar).
  - how the patient will manage high-risk situations.
  - who might be willing to help, such as significant others or nondrinking friends.
- **Provide educational materials.** See page 26 for "Strategies for Cutting Down" and page 27 for other materials available from NIAAA.

STEP 4 At Followup: Continue Support

REMINDER: Document alcohol use and review goals at each visit (see page 27 for downloadable progress notes).

Was the patient able to meet and sustain the drinking goal?

NO

- **Acknowledge that change is difficult.**
- **Support any positive change** and address barriers to reaching the goal.
- **Renegotiate the goal and plan;** consider a trial of abstinence.
- **Consider engaging significant others.**
- **Reassess the diagnosis** if the patient is unable to either cut down or abstain. (Go to Step 2.)

YES

- **Reinforce and support continued adherence** to recommendations.
- **Renegotiate drinking goals** as indicated (e.g., if the medical condition changes or if an abstaining patient wishes to resume drinking).
- **Encourage the patient to return** if unable to maintain adherence.
- **Rescreen** at least annually.

ALCOHOL USE DISORDERS (abuse or dependence)

STEP 3 Advise and Assist (Brief Intervention)

- **State your conclusion and recommendation clearly:**
  - "I believe that you have an alcohol use disorder. I strongly recommend that you quit drinking and I'm willing to help."
  - Relate to the patient's concerns and medical findings if present.
- **Negotiate a drinking goal:**
  - Abstaining is the safest course for most patients with alcohol use disorders.
  - Patients who have milder forms of abuse or dependence and are unwilling to abstain may be successful at cutting down. (See Step 3 for At-Risk Drinking.)
- **Consider** referring for additional **evaluation by an addiction specialist,** especially if the patient is dependent. (See page 23 for tips on finding treatment resources.)
- **Consider** recommending a **mutual help group.**
- For patients who have dependence, **consider**
  - the need for **medically managed withdrawal** (detoxification) and treat accordingly (see page 31).
  - prescribing a **medication** for alcohol dependence for those who endorse abstinence as a goal (see page 13).
- **Arrange followup** appointments, including medication management support if needed (see page 17).

STEP 4 At Followup: Continue Support

REMINDER: Document alcohol use and review goals at each visit (see page 27 for downloadable progress notes). If the patient is receiving a medication for alcohol dependence, medication management support should be provided (see page 17).

Was the patient able to meet and sustain the drinking goal?

NO

- **Acknowledge that change is difficult.**
- **Support efforts** to cut down or abstain, while making it clear that your recommendation is to abstain.
- **Relate drinking to problems** (medical, psychological, and social) as appropriate.
- If the following measures aren't already being taken, **consider**
  - referring to an **addiction specialist** or consulting with one.
  - recommending a **mutual help group.**
  - engaging **significant others.**
  - prescribing a **medication** for alcohol-dependent patients who endorse abstinence as a goal.
- **Address coexisting disorders**—medical and psychiatric—as needed.

YES

- **Reinforce and support continued adherence** to recommendations.
- **Coordinate care** with a specialist if the patient has accepted referral.
- **Maintain medications** for alcohol dependence for at least 3 months and as clinically indicated thereafter.
- **Treat coexisting nicotine dependence** for 6 to 12 months after reaching the drinking goal.
- **Address coexisting disorders**—medical and psychiatric—as needed.

Appendix

Clinician Support Materials
Screening Instrument: The Alcohol Use Disorders Identification Test (AUDIT) 10
Prescribing Medications for Alcohol Dependence 13
Supporting Patients Who Take Medications for Alcohol Dependence 17
Medication Management Support for Alcohol Dependence
Initial Session Template 19
Followup Session Template 21
Referral Resources 23

Patient Education Materials
What's a Standard Drink? 24
U.S. Adult Drinking Patterns 25
Strategies for Cutting Down 26

Online Materials for Clinicians and Patients 27

Frequently Asked Questions
About Alcohol Screening and Brief Interventions 28
About Drinking Levels and Advice 29
About Diagnosing and Helping Patients With Alcohol Use Disorders. 31

Notes 33

Screening Instrument: The Alcohol Use Disorders Identification Test (AUDIT)

Your practice may choose to have patients fill out a written screening instrument before they see a clinician. In this *Guide*, the AUDIT is provided in both English and Spanish for this purpose. It takes only about 5 minutes to complete, has been tested internationally in primary care settings, and has high levels of validity and reliability.[13] You may photocopy these pages or download them from *www.niaaa.nih.gov/guide.*

Scoring the AUDIT

Record the score for each response in the blank box at the end of each line, then total these numbers. The maximum possible total is 40.

Total scores of 8 or more for men up to age 60 or 4 or more for women, adolescents, and men over 60 are considered positive screens.[14,15,16] For patients with totals near the cut-points, clinicians may wish to examine individual responses to questions and clarify them during the clinical examination.

Note: The AUDIT's sensitivity and specificity for detecting heavy drinking and alcohol use disorders varies across different populations. Lowering the cut-points increases sensitivity (the proportion of "true positive" cases) while increasing the number of false positives. Thus, it may be easier to use a cut-point of 4 for all patients, recognizing that more false positives may be identified among men.

Continuing with screening and assessment

After the AUDIT is completed, continue with Step 1, page 4.

PATIENT: Because alcohol use can affect your health and can interfere with certain medications and treatments, it is important that we ask some questions about your use of alcohol. Your answers will remain confidential, so please be honest.

Place an X in one box that best describes your answer to each question.

Questions	0	1	2	3	4	
1. How often do you have a drink containing alcohol?	Never	Monthly or less	2 to 4 times a month	2 to 3 times a week	4 or more times a week	
2. How many drinks containing alcohol do you have on a typical day when you are drinking?	1 or 2	3 or 4	5 or 6	7 to 9	10 or more	
3. How often do you have 5 or more drinks on one occasion?	Never	Less than monthly	Monthly	Weekly	Daily or almost daily	
4. How often during the last year have you found that you were not able to stop drinking once you had started?	Never	Less than monthly	Monthly	Weekly	Daily or almost daily	
5. How often during the last year have you failed to do what was normally expected of you because of drinking?	Never	Less than monthly	Monthly	Weekly	Daily or almost daily	
6. How often during the last year have you needed a first drink in the morning to get yourself going after a heavy drinking session?	Never	Less than monthly	Monthly	Weekly	Daily or almost daily	
7. How often during the last year have you had a feeling of guilt or remorse after drinking?	Never	Less than monthly	Monthly	Weekly	Daily or almost daily	
8. How often during the last year have you been unable to remember what happened the night before because of your drinking?	Never	Less than monthly	Monthly	Weekly	Daily or almost daily	
9. Have you or someone else been injured because of your drinking?	No		Yes, but not in the last year		Yes, during the last year	
10. Has a relative, friend, doctor, or other health care worker been concerned about your drinking or suggested you cut down?	No		Yes, but not in the last year		Yes, during the last year	
					Total	

Note: This questionnaire (the AUDIT) is reprinted with permission from the World Health Organization. To reflect standard drink sizes in the United States, the number of drinks in question 3 was changed from 6 to 5. A free AUDIT manual with guidelines for use in primary care settings is available online at *www.who.org*.

PACIENTE: Debido a que el uso del alcohol puede afectar su salud e interferir con ciertos medicamentos y tratamientos, es importante que le hagamos algunas preguntas sobre su uso del alcohol. Sus respuestas serán confidenciales, así que sea honesto por favor.

Marque una X en el cuadro que mejor describa su respuesta a cada pregunta.

Preguntas	**0**	**1**	**2**	**3**	**4**	
1. ¿Con qué frecuencia consume alguna bebida alcohólica?	Nunca	Una o menos veces al mes	De 2 a 4 veces al mes	De 2 a 3 más veces a la semana	4 o más veces a la semana	
2. ¿Cuantas consumiciones de bebidas alcohólicas suele realizar en un día de consumo normal?	1 o 2	3 o 4	5 o 6	De 7 a 9	10 o más	
3. ¿Con qué frecuencia toma 5 o más bebidas alcohólicas en un solo día?	Nunca	Menos de una vez al mes	Mensualmente	Semanalmente	A diario o casi a diario	
4. ¿Con qué frecuencia en el curso del último año ha sido incapaz de parar de beber una vez había empezado?	Nunca	Menos de una vez al mes	Mensualmente	Semanalmente	A diario o casi a diario	
5. ¿Con qué frecuencia en el curso del último año no pudo hacer lo que se esperaba de usted porque había bebido?	Nunca	Menos de una vez al mes	Mensualmente	Semanalmente	A diario o casi a diario	
6. ¿Con qué frecuencia en el curso del último año ha necesitado beber en ayunas para recuperarse después de haber bebido mucho el día anterior?	Nunca	Menos de una vez al mes	Mensualmente	Semanalmente	A diario o casi a diario	
7. ¿Con qué frecuencia en el curso del último año ha tenido remor-dimientos o sentimientos de culpa después de haber bebido?	Nunca	Menos de una vez al mes	Mensualmente	Semanalmente	A diario o casi a diario	
8. ¿Con qué frecuencia en el curso del último año no ha podido recordar lo que sucedió la noche anterior porque había estado bebiendo?	Nunca	Menos de una vez al mes	Mensualmente	Semanalmente	A diario o casi a diario	
9. ¿Usted o alguna otra persona ha resultado herido porque usted había bebido?	No		Sí, pero no en el curso del último año		Sí, el último año	
10. ¿Algún familiar, amigo, médico o profesional sanitario ha mostrado preocupación por un consumo de bebidas alcohólicas o le ha sugerido que deje de beber?	No		Sí, pero no en el curso del último año		Sí, el último año	
					Total	

Note: This questionnaire (the AUDIT) is reprinted with permission from the World Health Organization and the Generalitat Valenciana Conselleria De Benestar Social. To reflect standard drink sizes in the United States, the number of drinks in question 3 was changed from 6 to 5. A free AUDIT manual with guidelines for use in primary care is available online at *www.who.org*.

Prescribing Medications for Alcohol Dependence

Three oral medications (naltrexone, acamprosate, and disulfiram) and one injectable medication (extended-release injectable naltrexone) are currently approved for treating alcohol dependence. They have been shown to help patients reduce drinking, avoid relapse to heavy drinking, achieve and maintain abstinence, or gain a combination of these effects. As is true in treating any chronic illness, addressing patient adherence systematically will maximize the effectiveness of these medications (see "Supporting Patients Who Take Medications for Alcohol Dependence," page 17).

When should medications be considered for treating an alcohol use disorder?

All approved drugs have been shown to be effective adjuncts to the treatment of alcohol dependence. Thus, consider adding medication whenever you're treating someone with active alcohol dependence or someone who has stopped drinking in the past few months but is experiencing problems such as craving or slips. Patients who have previously failed to respond to psychosocial approaches alone are particularly strong candidates.

Must patients agree to abstain?

No matter which alcohol dependence medication is used, patients who have a goal of abstinence, or who can abstain even for a few days prior to starting the medication, are likely to have better outcomes. Still, it's best to determine individual goals with each patient. Some patients may not be willing to endorse abstinence as a goal, especially at first. If a patient with alcohol dependence agrees to reduce drinking substantially, it's best to engage him or her in that goal while continuing to note that abstinence remains the optimal outcome.

A patient's willingness to abstain has important implications for the choice of medication. Most studies on effectiveness have required patients to abstain before starting treatment. A study of oral naltrexone, however, demonstrated a modest reduction in the risk of heavy drinking in people with mild dependence who chose to cut down rather than abstain.[17] A study of injectable naltrexone suggests that it, too, may reduce heavy drinking in dependent patients who are not yet abstinent, although it had a more robust effect in those who abstained for 7 days before starting treatment[18] and is only approved for use in those who can abstain in an outpatient setting before treatment begins. Acamprosate, too, is only approved for use in patients who are abstinent at the start of treatment. And disulfiram is contraindicated in patients who wish to continue to drink, because a disulfiram-alcohol reaction occurs with any alcohol intake at all.

Which of the medications should be prescribed?

Which medication to use will depend on clinical judgment and patient preference. Each has a different mechanism of action. Some patients may respond better to one type of medication than another.

Naltrexone

Mechanism: Naltrexone blocks opioid receptors that are involved in the rewarding effects of drinking alcohol and the craving for alcohol. It's available in two forms: oral (Depade®, ReVia®), with once daily dosing, and extended-release injectable (Vivitrol®), given as once monthly injections.

Efficacy: Oral naltrexone reduces relapse to heavy drinking, defined as 4 or more drinks per day for women and 5 or more for men.[19,20] It cuts the relapse risk during the first 3 months by about 36 percent (about 28 percent of patients taking naltrexone relapse versus about 43 percent of those taking a placebo).[20] Thus, it is especially helpful for curbing consumption in patients who have drinking "slips." It is less effective in maintenance of abstinence.[19,20] In the single study available when this *Guide* update was published, extended-release injectable naltrexone resulted in a 25 percent reduction in the proportion of heavy drinking days compared with a placebo, with a higher rate of response in males and those with lead-in abstinence.[18]

Acamprosate

Mechanism: Acamprosate (Campral®) acts on the GABA and glutamate neurotransmitter systems and is thought to reduce symptoms of protracted abstinence such as insomnia, anxiety, restlessness, and dysphoria. It's available in oral form (three times daily dosing).

Efficacy: Acamprosate increases the proportion of dependent drinkers who maintain abstinence for several weeks to months, a result demonstrated in multiple European studies and confirmed by a meta-analysis of 17 clinical trials.[21] The meta-analysis reported that 36 percent of patients taking acamprosate were continuously abstinent at 6 months, compared with 23 percent of those taking a placebo.

More recently, two large U.S. trials failed to confirm the efficacy of acamprosate,[22,23] although secondary analyses in one of the studies suggested possible efficacy in patients who had a baseline goal of abstinence.[23] A reason for the discrepancy between European and U.S. findings may be that patients in European trials had more severe dependence than patients in U.S. trials,[21,22] a factor consistent with preclinical studies showing that acamprosate has a greater effect in animals with a prolonged history of dependence.[24] In addition, before starting medication, most patients in European trials had been abstinent longer than patients in U.S. trials.[25]

Disulfiram

Mechanism: Disulfiram (Antabuse®) interferes with degradation of alcohol, resulting in accumulation of acetaldehyde which, in turn, produces a very unpleasant reaction including flushing, nausea, and palpitations if the patient drinks alcohol. It's available in oral form (once daily dosing).

Efficacy: The utility and effectiveness of disulfiram are considered limited because compliance is generally poor when patients are given it to take at their own discretion.[26] It is most effective when given in a monitored fashion, such as in a clinic or by a spouse.[27] (If a spouse or other family member is the monitor, instruct both monitor and patient that the monitor should simply observe the patient taking the medication and call you if the patient stops taking the medication for 2 days.) Some patients will respond to self-administered disulfiram, however, especially if they're highly motivated to abstain. Others may use it episodically for high-risk situations, such as social occasions where alcohol is present.

How long should medications be maintained?

The risk for relapse to alcohol dependence is very high in the first 6 to 12 months after initiating abstinence and gradually diminishes over several years. Therefore, a minimum initial period of 3 months of pharmacotherapy is recommended. Although an optimal treatment duration hasn't been established, it isn't unreasonable to continue treatment for a year or longer if the patient responds to medication during this time when the risk of relapse is highest. After patients discontinue medications, they may need to be followed more closely and have pharmacotherapy reinstated if relapse occurs.

If one medication doesn't work, should another be prescribed?

If there's no response to the first medication selected, you may wish to consider a second. This sequential approach appears to be common clinical practice, but currently there are no published studies examining its effectiveness. Similarly, there is not yet enough evidence to recommend a specific ordering of medications.

Is there any benefit to combining medications?

A large U.S. trial found no benefit to combining acamprosate and naltrexone.[22] More broadly, there is no evidence that combining any of the medications to treat alcohol dependence improves outcomes over using any one medication alone.

Should patients receiving medications also receive specialized alcohol counseling or a referral to mutual help groups?

Offering the full range of effective treatments will maximize patient choice and outcomes, since no single approach is universally successful or appealing to patients. The different approaches—medications for alcohol dependence, professional counseling, and mutual help groups—are complementary. They share the same goals while addressing different aspects of alcohol dependence: neurobiological, psychological, and social. The medications aren't prone to abuse, so they don't pose a conflict with other support strategies that emphasize abstinence.

Almost all studies of medications for alcohol dependence have included some type of counseling, and it's recommended that all patients taking these medications receive at least brief medical counseling. In a recent large trial, the combination of oral naltrexone and brief medical counseling sessions delivered by a nurse or physician was effective without additional behavioral treatment by a specialist.[22] Patients were also encouraged to attend support groups to increase social encouragement for abstinence. For more information, see "Supporting Patients Who Take Medications for Alcohol Dependence" on page 17 and "Should I recommend any particular behavioral therapy for patients with alcohol use disorders?" on page 31.

Medications for Treating Alcohol Dependence

	Naltrexone (Depade®, ReVia®)	**Extended-Release Injectable Naltrexone** (Vivitrol®)	**Acamprosate** (Campral®)	**Disulfiram** (Antabuse®)
Action	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 a reaction of flushing, sweating, nausea, and tachycardia if a patient drinks alcohol.
Contraindications	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.
Precautions	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 *www.niaaa.nih.gov/guide.*	Same as oral naltrexone, plus hemophilia or other bleeding problems.	Moderate renal impairment (dose adjustment for CrCl between 30 and 50 mL/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; hypothyroidism; 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 *www.niaaa.nih.gov/guide*.
Serious adverse reactions	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.
Common side effects	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.
Examples of drug interactions	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.
Usual adult dosage	*Oral dose:* 50 mg daily. *Before prescribing:* 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. Evaluate liver function. *Laboratory followup:* Monitor liver function.	*IM dose:* 380 mg given as a deep intramuscular gluteal injection, once monthly. *Before prescribing:* Same as oral naltrexone, plus examine the injection site for adequate muscle mass and skin condition. *Laboratory followup:* Monitor liver function.	*Oral dose:* 666 mg (two 333-mg tablets) three times daily; *or* for patients with moderate renal impairment (CrCl 30 to 50 mL/min), reduce to 333 mg (one tablet) three times daily. *Before prescribing:* Evaluate renal function. Establish abstinence.	*Oral dose:* 250 mg daily (range 125 mg to 500 mg). *Before prescribing:* 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). *Laboratory followup:* Monitor liver function.

Note: This chart highlights some of the properties of each medication. It does ***not*** provide complete information and is ***not*** meant to be a substitute for the package inserts or other drug reference sources used by clinicians. For patient information about these and other drugs, the National Library of Medicine provides MedlinePlus (*http://medlineplus.gov*). Whether or not a medication should be prescribed and in what amount is a matter between individuals and their health care providers. The prescribing information provided here is ***not*** a substitute for a provider's judgment in an individual circumstance, and the NIH accepts no liability or responsibility for use of the information with regard to particular patients.

The information in this chart was drawn primarily from package inserts and references 18, 20, 22, and 26 (see pages 33–34).

Supporting Patients Who Take Medications for Alcohol Dependence

Pharmacotherapy for alcohol dependence is most effective when combined with some behavioral support, but this doesn't need to be specialized, intensive alcohol counseling. Nurses and physicians in general medical and mental health settings, as well as counselors, can offer brief but effective behavioral support that promotes recovery. Applying this medication management approach in such settings would greatly expand access to effective treatment, given that many patients with alcohol dependence either don't have access to specialty treatment or refuse a referral.

How can general medical and mental health clinicians support patients who take medication for alcohol dependence?

Managing the care of patients who take medication for alcohol dependence is similar to other disease management strategies such as initiating insulin therapy in patients with diabetes mellitus. In the recent Combining Medications and Behavioral Interventions (COMBINE) clinical trial, physicians, nurses, and other health care professionals in outpatient settings delivered a series of brief behavioral support sessions for patients taking medications for alcohol dependence.[22] The sessions promoted recovery by increasing adherence to medication and supporting abstinence through education and referral to support groups.[22] This *Guide* offers a set of how-to templates outlining this program (see pages 19–22). It was designed for easy implementation in nonspecialty settings, in keeping with the national trend toward integrating the treatment of substance use disorders into medical practice.

What are the components of medication management support?

Medication management support consists of brief, structured outpatient sessions conducted by a health care professional. The initial session starts by reviewing the medical evaluation results with the patient as well as the negative consequences from drinking. This information frames a discussion about the diagnosis of alcohol dependence, the recommendation for abstinence, and the rationale for medication. The clinician then provides information on the medication itself and adherence strategies, and encourages participation in a mutual support group such as Alcoholics Anonymous (AA).

In subsequent visits, the clinician assesses the patient's drinking, overall functioning, medication adherence, and any side effects from the medication. Session structure varies according to the patient's drinking status and treatment compliance, as outlined on page 22. When a patient doesn't adhere to the medication regimen, it's important to evaluate the reasons and help the patient devise plans to address them. A helpful summary of strategies for handling nonadherence is provided in the "Medical Management Treatment Manual" from Project COMBINE, available online at *www.niaaa.nih.gov/guide.*

As conducted in the COMBINE trial, the program consisted of an initial session of about 45 minutes followed by eight 20-minute sessions during weeks 1, 2, 4, 6, 8, 10, 12, and 16. General medical or mental health practices may not follow this particular schedule, but it's offered along with the templates as a starting point for developing a program that works for your practice and your patients.

Can medication management support be used with patients who don't endorse a goal of abstinence?

This medication management program has been tested only in patients for whom abstinence was recommended, as is true with most pharmacotherapy studies. It's not known whether it would also work if the patient's goal is to cut back instead of abstain. Even when patients do endorse abstinence as a goal, they often cut back without quitting. You're encouraged to continue working with those patients who are working toward recovery but haven't yet met the optimal goals of abstinence or reduced drinking with full remission of dependence symptoms. You may also find many of the techniques used in medication management support—such as linking symptoms and laboratory results with heavy alcohol use—to be helpful for managing alcohol-dependent patients in general.

Initial Session Template

Medication Management Support for Alcohol Dependence

This template outlines the first in a series of appointments designed to support patients diagnosed with alcohol dependence who are starting a course of medication to help them maintain abstinence.

Date: _____ Time spent: _____

Patient name: _____

Pertinent history: _____

Observations: _____

Before counseling:

Record from the patient's chart:

☐ Alcohol-dependence medication prescribed:
☐ naltrexone PO ☐ XR-naltrexone injectable ☐ acamprosate ☐ disulfiram ☐ other: _____
dose and schedule: _____

☐ Lab results and other patient information (fill in the left column of the chart below, to the degree possible)

Gather:

☐ Patient information on the medication (available, for example, from *www.medlineplus.gov*)
☐ Wallet emergency card for naltrexone or disulfiram (see *www.niaaa.nih.gov/guide*)
☐ Listing of local mutual help groups. For AA, see *www.aa.org;* for other groups, see the National Clearinghouse for Alcohol and Drug Information Web site at *www.ncadi.samhsa.gov* under "Resources."

Patient information— from the chart or patient report, this forms the basis for counseling	**Counseling—** delivered in a nonjudgmental way, this enhances patient motivation and provides the rationale for medication
1 Review lab results and medical adverse consequences of heavy drinking:	**Tie results and symptoms to heavy alcohol use:**
Liver function test results: AST (SGOT): _____ ALT (SGPT): _____ GGT (GGTP): _____ Total Bilirubin: _____ Albumin: _____	**Describe normal liver function and adverse effects of heavy drinking, then discuss results of liver function tests:** *If normal range:* "This is a positive sign that your liver has avoided harm so far, and that now you have the opportunity to keep it that way by changing your drinking habits. Having a healthy liver will also help you make a quicker, more complete recovery." *If abnormal:* "The test results are most likely a sign of unhealthy changes in your liver from heavy alcohol use. The longer you continue to drink, the harder it is to reverse the damage. But if you stop drinking, you may be able to get your liver function back to normal."
Blood pressure: _____/_____ **Pulse:** _____	**If blood pressure is elevated, describe relationship between high blood pressure and heavy drinking.**
Other medical conditions affected by drinking and relevant lab results: ☐ diabetes ☐ heart disease ☐ GI: _____ ☐ insomnia ☐ depression ☐ anxiety ☐ pain ☐ other: _____ ☐ other relevant lab results (e.g., MCV): _____	**Describe relationship between condition(s) and heavy drinking, including relevant lab results.**

2 Review amount of drinking and nonmedical adverse consequences of heavy drinking:

Amount of drinking: When was last drink? _____

In the past 30 days,
—how many drinking days (*any* alcohol): _____ days
—how many *heavy* drinking days (5+ drinks/day for men, 4+ drinks/day for women): _____ days

Nonmedical adverse consequences:
☐ interpersonal ☐ employment/school ☐ legal
specify: _____

→ **Focus more on the consequences of drinking than on the quantity:**

"I see that when you drink, you drink heavily, and that you've reported some problems related to that, such as (x). We see these as (additional) signs that drinking is harmful for you."

3 Confirm diagnosis of alcohol dependence.

→ **Recommend abstinence and provide rationale for medications:**

"You have a diagnosis of alcohol dependence." (Provide patient materials if available.) "We strongly recommend that you stop drinking altogether. For someone with alcohol dependence, this is the safest choice. It's also best for your health. Quitting is hard, which is why a medication has been prescribed that may help you abstain."

4 Review the patient's decision on abstinence:

Is the patient willing to abstain? ☐ yes ☐ no

Comment: _____

_____

→ **If the patient is unwilling or unable to commit to abstinence, offer a trial period:**

"If you're thinking that lifelong abstinence is too difficult a goal to commit to right now, you could try a brief period of, say, a month to find out what it's like to live without alcohol. Would you be willing to try this out?"

If a trial of abstinence isn't accepted, reconsider whether medication is still appropriate with a modified goal.

Provide medication counseling, focusing on

☐ **Mechanism of action and time course of effects.** Describe how the medication works and how long it may take to be effective.

☐ **Potential side effects.** Discuss the likelihood of side effects (see the package insert) and ways to cope with adverse events such as nausea or diarrhea. Advise the patient to contact you if concerned about side effects.

☐ **Dosing and adherence.** Review the dosing regimen, remind the patient to take the medication consistently for effectiveness, and explain what to do if a dose is skipped.

☐ **Adherence strategies.** Discuss the patient's history of pill-taking practices, then strategies to promote adherence, such as taking pills at the same time each day, using weekly pill containers, and enlisting others' support.

☐ **Emergency cards.** For naltrexone, educate the patient about potential complications with opioid use and analgesics. For disulfiram, educate the patient about the alcohol-disulfiram reaction and avoiding alcohol in food and medicines. Give the patient wallet emergency cards: _____ _____ (initials and date)

6 Encourage participation in a mutual support group:

☐ **Provide list of local options and describe the benefits of attendance.** Note that attending AA or another mutual support group is a way to acquire a network of friends who have found ways to live without alcohol. Tell the patient that medication is time limited and that the importance of mutual support groups increases when medications are stopped.

☐ **Address barriers to attendance:**

- If the patient is reluctant to attend: "Would you be willing to try just one meeting before our next session?"
- If the patient has attended a meeting before and wasn't comfortable: "Not all groups are alike. It's likely that you'll need to try several before finding one that feels right."
- If the patient is concerned about members disapproving of his or her medication: "The medication is a tool you'll use in an effort not to drink. It has been shown to help others stop drinking. Also, it's not addicting. And the official policy of AA supports people taking nonaddicting medicines prescribed by a doctor."

7 Wrap up:

☐ Summarize the diagnosis and recommendation for abstinence
☐ Summarize dosage regimen
☐ Ask about remaining questions or concerns
☐ Schedule the next visit
☐ Other followup: _____
_____
_____

8 Next appointment date: _____

Followup Session Template

Medication Management Support for Alcohol Dependence

Date: _____ Time spent: _____

Patient name: _____

Vital signs (if taken): BP: _____/_____ P: _____ Weight: _____

Laboratory data (if available): GGT: _____ AST: _____ ALT: _____ Other: _____

General progress and patient concerns since the last visit: _____

_____

Observations of patient cognition: _____ Mood: _____

Physical signs: _____ Other: _____

Drinking status

- **How long since the last drink?** _____ days/weeks/months
- **In the past 30 days (or since the last visit if less than 30 days):**
  — how many drinking days (*any* alcohol): _____ days in the past _____ days
  — how many *heavy* drinking days (5+ drinks/day for men, 4+ drinks/day for women):
  _____ days in the past _____ days
- **Other:** _____

Alcohol pharmacotherapy

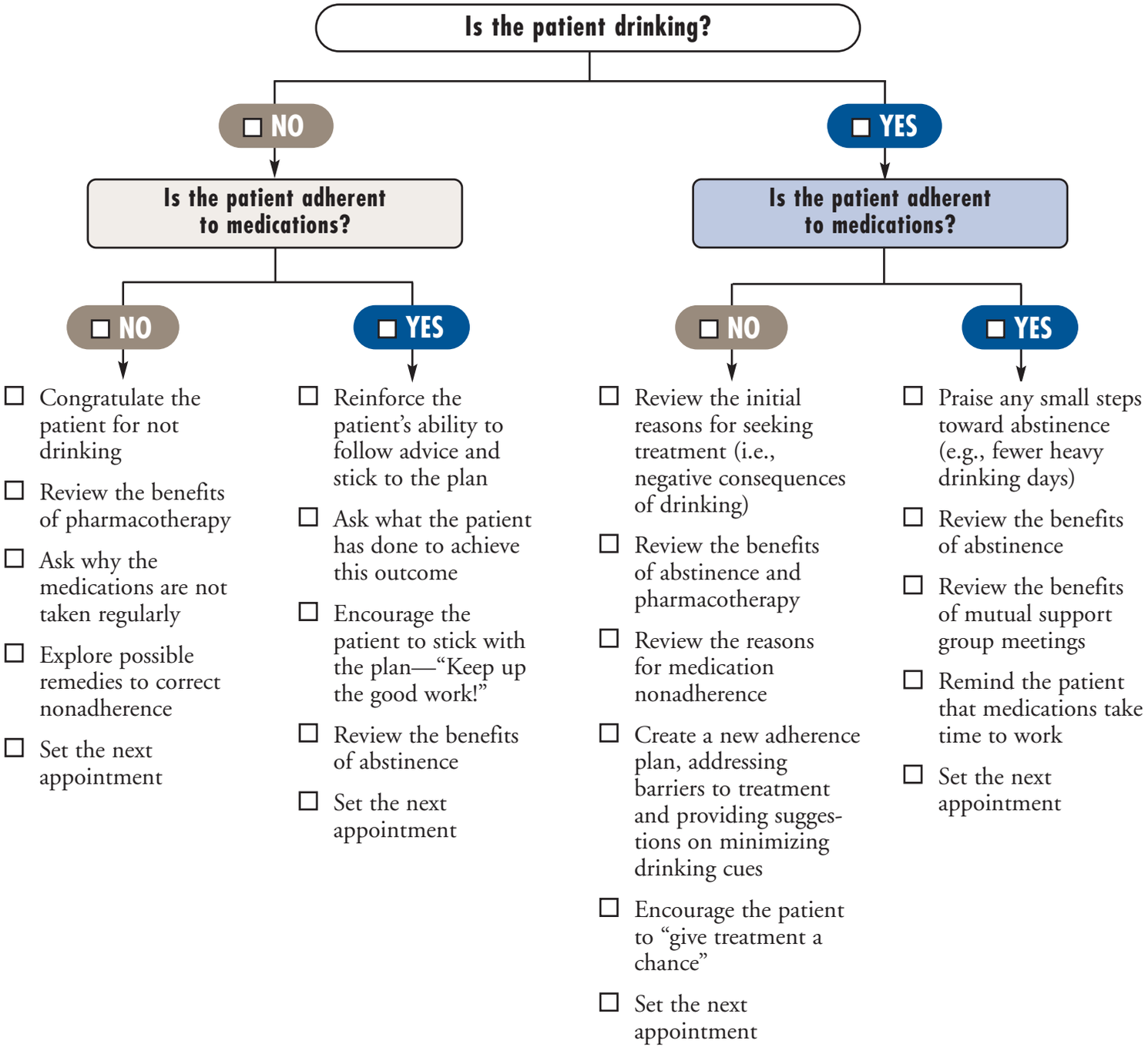
- **Medications prescribed:** ☐ none ☐ naltrexone PO ☐ XR-naltrexone injectable ☐ acamprosate
  ☐ disulfiram ☐ other: _____
- **In the past 30 days (or since the last visit if less than 30 days), how many days has the patient taken medication?** _____ days in the past _____ days
- **Side effects:** ☐ none ☐ nausea ☐ vomiting ☐ diarrhea ☐ headache ☐ injection site reaction
  ☐ other: _____
- **Patient's perception of the medication's effectiveness:** ☐ helpful ☐ not helpful ☐ not sure
  ☐ specify: _____

Other treatment received

Since your last visit, have you:

Yes	*No*	
☐	☐	Started any new medications? (specify) _____
☐	☐	Attended mutual support groups? If yes, how often? _____
☐	☐	Received alcohol or addiction counseling? (specify) _____
☐	☐	Received other counseling? (specify) _____
☐	☐	Entered a treatment program? ☐ residential ☐ intensive outpatient ☐ other (specify) _____
☐	☐	Been hospitalized for alcohol or drug use? (specify) _____
☐	☐	Been treated for withdrawal (shakes)? (specify) _____

Counseling provided (check the dialogue used)



Other recommendations (e.g., side effects management, new adherence plan): _____

_____

Followup:
- ☐ Continue the current treatment plan
- ☐ Change the treatment plan as follows: _____

_____

- ☐ (for nurses): Refer to physician for medical evaluation

Next appointment date: _____

Referral Resources

When making referrals, involve your patient in the decisions and schedule a referral appointment while he or she is in your office.

Finding evaluation and treatment options

- For patients with insurance, contact a behavioral health case manager at the insurance company for a referral.
- For patients who are uninsured or underinsured, contact your local health department about addiction services.
- For patients who are employed, ask whether they have access to an Employee Assistance Program with addiction counseling.
- To locate treatment options in your area:
  - Call local hospitals to see which ones offer addiction services.
  - Call the National Drug and Alcohol Treatment Referral Routing Service (1-800-662-HELP) or visit the Substance Abuse Facility Treatment Locator Web site at *http://findtreatment.samhsa.gov.*

Finding support groups

- Alcoholics Anonymous (AA) offers free, widely available groups of volunteers in recovery from alcohol dependence. Volunteers are often willing to work with professionals who refer patients. For contact information for your region, visit *www.aa.org.*
- Other mutual help organizations that offer secular approaches, groups for women only, or support for family members can be found on the National Clearinghouse for Alcohol and Drug Information Web site (*www.ncadi.samhsa.gov*) under "Resources."

Local resources

Use the space below for contact information for resources in your area (treatment centers, mutual support groups such as AA, local government services, the closest Veterans Affairs medical center, shelters, churches).

_____

_____

_____

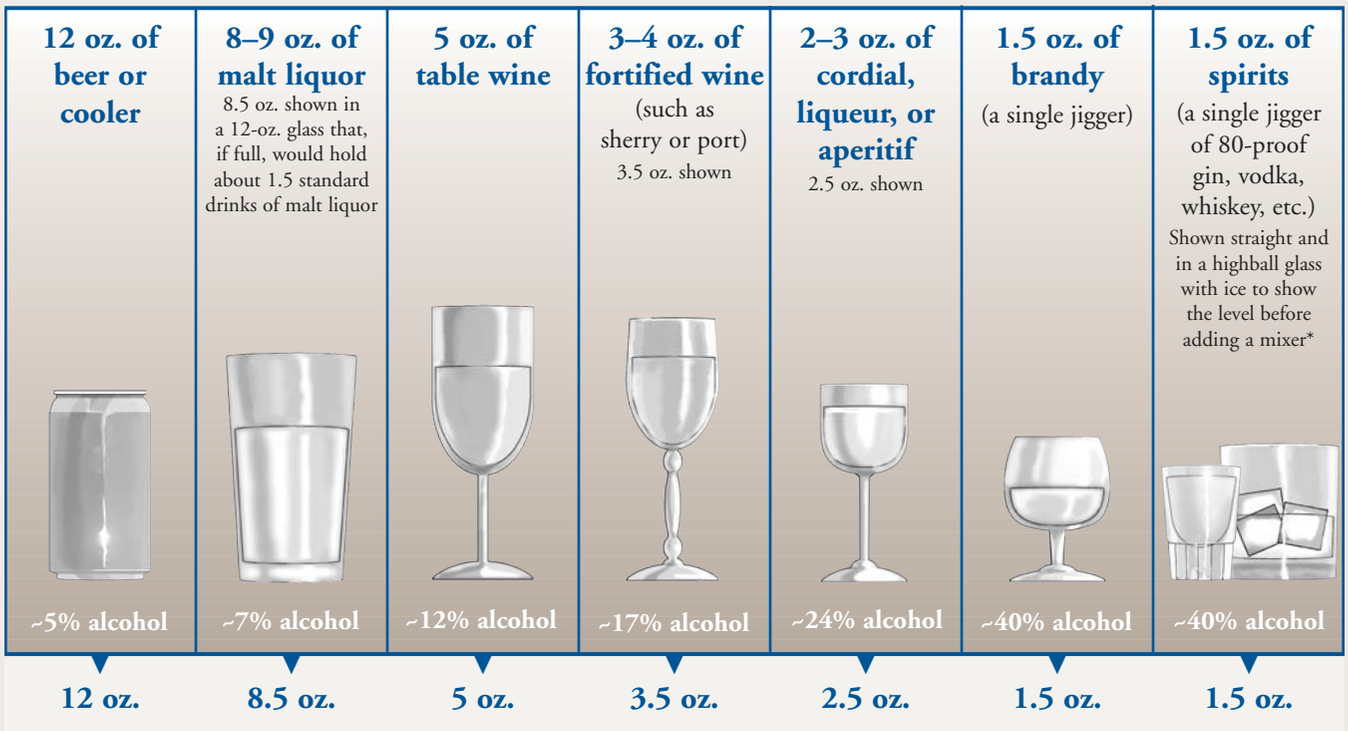
_____

_____

_____

What's a Standard Drink?

A standard drink in the United States is any drink that contains about 14 grams of pure alcohol (about 0.6 fluid ounces or 1.2 tablespoons). Below are U.S. standard drink equivalents. These are approximate, since different brands and types of beverages vary in their actual alcohol content.



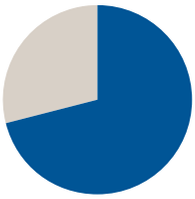
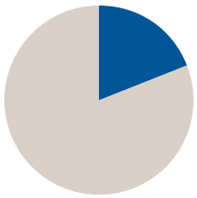
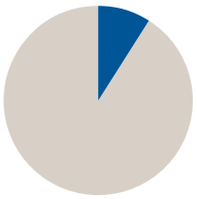
Many people don't know what counts as a standard drink and so they don't realize how many standard drinks are in the containers in which these drinks are often sold. Some examples:

- For **beer,** the approximate number of standard drinks in
  - 12 oz. = 1
  - 16 oz. = 1.3
  - 22 oz. = 2
  - 40 oz. = 3.3
- For **malt liquor,** the approximate number of standard drinks in
  - 12 oz. = 1.5
  - 16 oz. = 2
  - 22 oz. = 2.5
  - 40 oz. = 4.5
- For **table wine,** the approximate number of standard drinks in
  - a standard 750-mL (25-oz.) bottle = 5
- For **80-proof spirits,** or "hard liquor," the approximate number of standard drinks in
  - a mixed drink = 1 or more*
  - a pint (16 oz.) = 11
  - a fifth (25 oz.) = 17
  - 1.75 L (59 oz.) = 39

**Note:* It can be difficult to estimate the number of standard drinks in a single mixed drink made with hard liquor. Depending on factors such as the type of spirits and the recipe, a mixed drink can contain from one to three or more standard drinks.

U.S. Adult Drinking Patterns

Nearly 3 in 10 U.S. adults engage in at-risk drinking patterns[3] and thus would benefit from advice to cut down or a referral for further evaluation. During a brief intervention, you can use this chart to show that (1) most people abstain or drink within the recommended limits and (2) the prevalence of alcohol use disorders rises with heavier drinking. Though a wise first step, cutting to within the limits is not risk free, since motor vehicle crashes and other problems can occur at lower drinking levels.

WHAT'S YOUR DRINKING PATTERN?	HOW COMMON IS THIS PATTERN?	HOW COMMON ARE ALCOHOL DISORDERS IN DRINKERS WITH THIS PATTERN?
Based on the following limits—number of drinks: On any **DAY**—Never more than **4** (men) or **3** (women) **– and –** In a typical **WEEK**—No more than **14** (men) or **7** (women)	**Percentage of U.S. adults aged 18 or older***	**Combined prevalence of alcohol abuse and dependence****
Never exceed the daily or weekly limits (2 out of 3 people in this group abstain or drink fewer than 12 drinks a year)	 **72%**	fewer than **1 in 100**
Exceed only the daily limit (More than 8 out of 10 in this group exceed the daily limit *less than once a week*)	 **16%**	**1 in 5**
Exceed both daily and weekly limits (8 out of 10 in this group exceed the daily limit *once a week or more*)	 **10%**	almost **1 in 2**

* Not included in the chart, for simplicity, are the 2 percent of U.S. adults who exceed *only* the weekly limits. The combined prevalence of alcohol use disorders in this group is 8 percent.

** See page 5 for the diagnostic criteria for alcohol disorders.

Strategies for Cutting Down

Small changes can make a big difference in reducing your chances of having alcohol-related problems. Here are some strategies to try. Check off some to try the first week, and add some others the next.

☐ **Keeping track**

Keep track of how much you drink. Find a way that works for you, such as a 3x5" card in your wallet, check marks on a kitchen calendar, or a personal digital assistant. If you make note of each drink before you drink it, this will help you slow down when needed.

☐ **Counting and measuring**

Know the standard drink sizes so you can count your drinks accurately. One standard drink is 12 ounces of regular beer, 8 to 9 ounces of malt liquor, 5 ounces of table wine, or 1.5 ounces of 80-proof spirits. Measure drinks at home. Away from home, it can be hard to know the number of standard drinks in mixed drinks. To keep track, you may need to ask the server or bartender about the recipe.

☐ **Setting goals**

Decide how many days a week you want to drink and how many drinks you'll have on those days. You can reduce your risk of alcohol dependence and related problems by drinking within the limits in the box to the right. It's a good idea to have some days when you don't drink.

☐ **Pacing and spacing**

When you do drink, pace yourself. Sip slowly. Have no more than one drink with alcohol per hour. Alternate "drink spacers"—nonalcoholic drinks such as water, soda, or juice—with drinks containing alcohol.

☐ **Including food**

Don't drink on an empty stomach. Have some food so the alcohol will be absorbed more slowly into your system.

☐ **Avoiding "triggers"**

What triggers your urge to drink? If certain people or places make you drink even when you don't want to, try to avoid them. If certain activities, times of day, or feelings trigger the urge, plan what you'll do instead of drinking. If drinking at home is a problem, keep little or no alcohol there.

MAXIMUM DRINKING LIMITS FOR HEALTHY ADULTS*

For healthy **men up to age 65**—
- no more than **4** drinks in a **day**
  AND
- no more than **14** drinks in a **week**

For healthy **women** (and healthy **men over age 65**)—
- no more than **3** drinks in a **day**
  AND
- no more than **7** drinks in a **week**

* Depending on your health status, your doctor may advise you to drink less or abstain.

☐ **Planning to handle urges**

When an urge hits, consider these options: Remind yourself of your reasons for changing. Or talk it through with someone you trust. Or get involved with a healthy, distracting activity. Or "urge surf"—instead of fighting the feeling, accept it and ride it out, knowing that it will soon crest like a wave and pass.

☐ **Knowing your "no"**

You're likely to be offered a drink at times when you don't want one. Have a polite, convincing "no, thanks" ready. The faster you can say no to these offers, the less likely you are to give in. If you hesitate, it allows you time to think of excuses to go along.

Additional tips for quitting

If you want to quit drinking altogether, the last three strategies can help. In addition, you may wish to ask for support from people who might be willing to help, such as a significant other or nondrinking friends. Joining Alcoholics Anonymous or another mutual support group is a way to acquire a network of friends who have found ways to live without alcohol. If you're dependent on alcohol and decide to stop drinking completely, don't go it alone. Sudden withdrawal from heavy drinking can cause dangerous side effects such as seizures. See a doctor to plan a safe recovery.

Online Materials for Clinicians and Patients

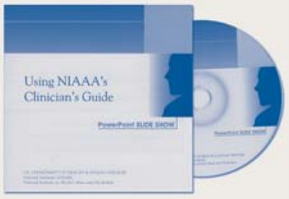
Visit the NIAAA Web site at *www.niaaa.nih.gov/guide* for these and other materials to support you in alcohol screening, brief interventions, and followup patient care. NIAAA continually develops and updates materials for practitioners and patients; please check the Web site for new offerings. You may also order materials by writing to the NIAAA Publications Distribution Center, P.O. Box 10686, Rockville, MD 20849-0686 or calling 301–443–3860.

Clinician support and training

Forms for downloading

- Screening instrument: The Alcohol Use Disorders Identification Test (AUDIT) in English and Spanish
- Assessment support: Sample questions for assessment of alcohol use disorders
- Preformatted progress notes and templates
  - Baseline and followup progress notes
  - Medication management support templates
- Medication wallet card form

Animated slide show



- This 80-slide PowerPoint™ show helps instructors present the content of the *Guide* to students and professionals in the general medicine and mental health fields.

Online training

- Coming in spring 2007: Online training in screening and brief intervention for Continuing Medical Education credit.

Publications for professionals

- *Alcohol Alerts:* These 4-page bulletins provide timely information on alcohol research and treatment.
- *Alcohol Research & Health:* Each issue of this quarterly peer-reviewed journal contains review articles on a central topic related to alcohol research.
- *A Pocket Guide for Alcohol Screening and Brief Intervention:* This is a condensed, portable version of this publication.
- Spanish edition of the *Guide: Ayudando a Pacientes Que Beben en Exceso—Guia Para Profesionales de la Salud.*

Patient education

Handouts for downloading

- In English and Spanish: *Strategies for Cutting Down; U.S. Adult Drinking Patterns; What's a Standard Drink?*

Publications for the public

- In English and Spanish: *Alcohol: A Women's Health Issue; Frequently Asked Questions about Alcoholism and Alcohol Abuse; A Family History of Alcoholism: Are You at Risk?* and more

Frequently Asked Questions

About alcohol screening and brief interventions

How effective is screening for heavy drinking?

Studies have demonstrated that screening is sensitive and that patients are willing to give honest information about their drinking to health care practitioners when appropriate methods are used.[6,15] Several methods have been shown to work, including quantity-frequency interview questions and questionnaires such as the CAGE, the AUDIT, the shorter AUDIT-C, the TWEAK (for pregnant women), and others.[28,29] In this *Guide*, the single screening question about heavy drinking days was chosen for its simplicity and because almost all people with alcohol use disorders report drinking 5 or more drinks in a day (for men) or 4 or more (for women) at least occasionally. This *Guide* also recommends the AUDIT (provided on page 11) as a self-administered screening tool because of its high levels of validity and reliability.[15]

With the single interview question, screening is positive with just one heavy drinking day in the past year. Isn't that casting a very broad net?

A common reaction to the screening question is, "Everybody's going to meet this, at least occasionally." A large national survey by NIAAA, however, showed that nearly three-fourths of U.S. adults never exceed the limits in the screening question.[3] Even if patients report that they only drink heavily on rare occasions, screening provides an opportunity to educate them about safe drinking limits so that heavy drinking doesn't become more frequent. The risk for alcohol-related problems rises with the number of heavy drinking days,[1] and some problems, such as driving while intoxicated or trauma, can occur with a single occasion.

How effective are brief interventions?

Randomized, controlled clinical trials in a variety of populations and settings have shown that brief interventions can decrease alcohol use significantly among people who drink above the recommended limits but aren't dependent. In several intervention trials with multiple brief contacts, for example, heavy drinkers cut an average of three to nine drinks per week, for a 13 to 34 percent net reduction in consumption.[30] Even relatively modest reductions in drinking can have important health benefits when spread across a large number of people. Brief intervention trials have also reported significant decreases in blood pressure readings, levels of gamma-glutamyl transferase (GGT), psychosocial problems, hospital days, and hospital readmissions for alcohol-related trauma.[8] Followup periods typically range from 6 to 24 months, although one recent study reported sustained reductions in alcohol use over 48 months.[8] A cost-benefit analysis in this study showed that each dollar invested in brief physician intervention could reap more than fourfold savings in future health care costs. Other research shows that for alcohol-dependent patients with an alcohol-related medical illness, repeated brief interventions at approximately monthly intervals for 1 to 2 years can lead to significant reductions in or cessation of drinking.[9,10]

What can I do to encourage my patients to give honest and accurate answers to the screening questions?

It's often best to ask about alcohol consumption at the same time as other health behaviors such as smoking, diet, and exercise. Using an empathic, nonconfrontational approach can help put patients at ease. Some clinicians have found that prefacing the alcohol questions with a nonthreatening opener such as "Do you enjoy a drink now and then?" can encourage reserved patients to talk. Patients may feel that a written or computerized self-report version of the AUDIT is less confrontational as well. To improve the accuracy of estimated drinking quantities, you could ask patients to look at the "What's a Standard Drink?" chart on page 24. Many people are surprised to learn what counts as a single standard drink, especially for beverages with a higher alcohol content such as malt liquors, fortified wines, and spirits. The chart also lists the number of standard drinks in commonly purchased beverage containers. In some situations, you may consider adding the questions "How often do you buy alcohol?" and "How much do you buy?" to help build an accurate estimate.

How can a clinic- or office-based screening system be implemented?

The best studied method, which is both easy and efficient, is to ask patients to fill out the 10-item AUDIT before seeing the doctor. This form (provided on page 11) can be added to others that patients fill out. The full AUDIT or the 3-item AUDIT-C can also be incorporated into a larger health history form. The AUDIT-C consists of the first three consumption-related items of the AUDIT; a score of 6 or more for men and 4 or more for women[31] indicates a positive screen. Alternatively, the single-item screen in Step 1 of this *Guide* could be incorporated into a health history form. Screening can also be done in person by a nurse during patient check-in. (See also "Set Up Your Practice to Simplify the Process" on page 3.)

Are there any specific considerations for implementing screening in mental health settings?

Studies have demonstrated a strong relationship between alcohol use disorders and other mental disorders.[32] Heavy drinking can cause psychiatric symptoms such as depression, anxiety, insomnia, cognitive dysfunction, and interpersonal conflict. For patients who have an independent psychiatric disorder, heavy drinking may compromise the treatment response. Thus, it is important that all mental health clinicians conduct routine screening for heavy drinking.

Less is known about the performance of screening methods or brief interventions in mental health settings than in primary care settings. Still, the single-question screener in this *Guide* is likely to work reasonably well, since almost everyone with an alcohol use disorder reports drinking above the recommended daily limits at least occasionally.

Mental health clinicians may need to conduct a more thorough assessment to determine whether an alcohol use disorder is present and how it might be interacting with other mental or substance use disorders. The recommended limits for drinking may need to be lowered depending on coexisting problems and prescribed medications.

Similarly, a more extended behavioral intervention may be needed to address coexisting alcohol use disorders, either delivered as part of mental health treatment or through referral to an addiction specialist.

About drinking levels and advice

When should I recommend abstaining versus cutting down?

Certain conditions warrant advice to abstain as opposed to cutting down. These include when drinkers:

- are or may become pregnant
- are taking a contraindicated medication (see box below)
- have a medical or psychiatric disorder caused by or exacerbated by drinking
- have an alcohol use disorder

If patients with alcohol use disorders are unwilling to commit to abstinence, they may be willing to cut down on their drinking. This should be encouraged while noting that abstinence, the safest strategy, has a greater chance of long-term success.

For heavy drinkers who don't have an alcohol use disorder, use professional judgment to determine whether cutting down or abstaining is more appropriate, based on factors such as these:

℞ Interactions Between Alcohol and Medications

Alcohol can interact negatively with medications either by interfering with the metabolism of the medication (generally in the liver) or by enhancing the effects of the medication (particularly in the central nervous system). Many classes of prescription medicines can interact with alcohol, including antibiotics, antidepressants, antihistamines, barbiturates, benzodiazepines, histamine H2 receptor agonists, muscle relaxants, nonopioid pain medications and anti-inflammatory agents, opioids, and warfarin. In addition, many over-the-counter medications and herbal preparations can cause negative side effects when taken with alcohol.

- a family history of alcohol problems
- advanced age
- injuries related to drinking
- symptoms such as sleep disorders or sexual dysfunction

It may be useful to discuss different options, such as cutting down to recommended limits or abstaining completely for perhaps a month or two, then reconsidering future drinking. If cutting down is the initial strategy but the patient is unable to stay within limits, recommend abstinence.

How do I factor the potential benefits of moderate drinking into my advice to patients who drink rarely or not at all?

Moderate consumption of alcohol (defined by U.S. Dietary Guidelines as up to two drinks a day for men and one for women) has been associated with a reduced risk of coronary heart disease.[33] Achieving a balance between the risks and benefits of alcohol consumption remains difficult, however, because each person has a different susceptibility to diseases potentially caused or prevented by alcohol. The advice you would give to a young person with a family history of alcoholism, for example, would differ from the advice you would give to a middle-aged patient with a family history of premature heart disease. Most experts don't recommend advising nondrinking patients to begin drinking to reduce their cardiovascular risk. However, if a patient is considering this, discuss safe drinking limits and ways to avoid alcohol-induced harm.

Why are the recommended drinking limits lower for some patients?

The limits are lower for women because they have proportionally less body water than men do and thus achieve higher blood alcohol concentrations after drinking the same amount of alcohol. Older adults also have less lean body mass and greater sensitivity to alcohol's effects. In addition, there are many clinical situations where abstinence or lower limits are indicated, because of a greater risk of harm associated with drinking. Examples include women who are or may become pregnant, patients taking medications that may interact with alcohol, young people with a family history of alcohol dependence, and patients with physical or psychiatric conditions that are caused by or exacerbated by alcohol.

Some of my patients who drink heavily believe that this is normal. What percentage of people drink at, above, or below moderate levels?

About 7 in 10 adults abstain, drink rarely, or drink within the daily and weekly limits noted in Step 1.[3] The rest exceed the daily limits, the weekly limits, or both. The "U.S. Adult Drinking Patterns" chart on page 25 shows the percentage of drinkers in each category, as well as the prevalence of alcohol use disorders in each group. Because heavy drinkers often believe that most people drink as much and as often as they do, providing normative data about U.S. drinking patterns and related risks can provide a helpful reality check. In particular, those who believe that it's fine to drink moderately during the week and heavily on the weekends need to know that they have a higher chance not only of immediate alcohol-related injuries, but also of developing alcohol use disorders and other alcohol-related medical and psychiatric disorders.

Some of my patients who are pregnant don't see any harm in having an occasional drink. What's the latest advice?

Some pregnant women may not be aware of the risks involved with drinking, while others may drink before they realize they're pregnant. A recent survey estimates that 1 in 10 pregnant women in the United States drinks alcohol.[34] In addition, among sexually active women who aren't using birth control, more than half drink and 12.4 percent report binge drinking, placing them at particularly high risk for an alcohol-exposed pregnancy.[34]

Each year, an estimated 2,000 to 8,000 infants are born with fetal alcohol syndrome in the United States, and many thousands more are born with some degree of alcohol-related effects.[35] These problems range from mild learning and behavioral problems to growth deficiencies to severe mental and physical impairment. Together, these adverse effects comprise fetal alcohol spectrum disorders.

Because it isn't known whether any amount of alcohol is safe during pregnancy, the Surgeon General recently reissued an advisory that urges women who are or may become pregnant to abstain from drinking alcohol.[2] The advisory also recommends that pregnant women who have already consumed alcohol stop to minimize further

risks and that health care professionals inquire routinely about alcohol consumption by women of childbearing age.

About diagnosing and helping patients with alcohol use disorders

What if a patient reports some symptoms of an alcohol use disorder but not enough to qualify for a diagnosis?

Alcohol use disorders are similar to other medical disorders such as hypertension, diabetes, or depression in having "gray zones" of diagnosis. For example, a patient might report a single arrest for driving while intoxicated and no other symptoms. Since a diagnosis of alcohol abuse requires repetitive problems, that diagnosis couldn't be made. Similarly, a patient might report one or two symptoms of alcohol dependence, but three are needed to qualify for a diagnosis.

Any symptom of abuse or dependence is a cause for concern and should be addressed, since an alcohol use disorder may be present or developing. These patients may be more successful with abstaining as opposed to cutting down to recommended limits. Closer followup is indicated, as well as reconsidering the diagnosis as more information becomes available.

Should I recommend any particular behavioral therapy for patients with alcohol use disorders?

Several types of behavioral therapy are used to treat alcohol use disorders. Cognitive-behavioral therapy, motivational enhancement, and 12-step facilitation (e.g., the Minnesota Model) have all been shown to be effective.[36] A combination of approaches has been shown to be effective as well (see the next question). Getting help in itself appears to be more important than the particular approach used, provided it avoids heavy confrontation and incorporates the basic elements of empathy, motivational support, and an explicit focus on changing drinking behavior. For patients receiving medications for alcohol dependence, brief medical counseling sessions delivered by a nurse or physician have been shown to be effective without additional behavioral treatment by a specialist[22] (see page 17).

In addition to more formal treatment approaches, mutual help groups such as Alcoholics Anonymous (AA) appear to be very beneficial for people who stick with them. AA is widely available, free, and requires no commitment other than a desire to stop drinking. If you've never attended a meeting, consider doing so as an observer and supporter. To learn more, visit *www.aa.org.* Other self-help organizations that offer secular approaches, groups for women only, or support for family members can be found on the National Clearinghouse for Alcohol and Drug Information Web site (*www.ncadi.samhsa.gov*) under "Resources."

As a mental health clinician, how can I learn more about specialized alcohol counseling?

For a recent major clinical trial, NIAAA grantees designed state-of-the-art individual outpatient psychotherapy for alcohol dependence. Called a combined behavioral intervention (CBI), it integrates cognitive-behavioral therapy, motivational enhancement, 12-step approaches, couples therapy, and community reinforcement—all treatments shown in earlier studies to be beneficial. Behavioral specialists deliver CBI in up to 20 sessions of 50 minutes (the median in the trial was 10 sessions). The treatment has four phases: building motivation for change, developing an individual plan for treatment and change, completing individualized skill-training modules, and performing maintenance checkups. Findings from the trial show that this specialized alcohol counseling or the medication naltrexone was effective, when coupled with structured medical management.[22] The CBI strategy and supporting materials are provided in the 328-page *Combined Behavioral Intervention Manual* from Project COMBINE; to order for a small fee, visit *www.niaaa.nih.gov/guide.*

How should alcohol withdrawal be managed?

Alcohol withdrawal results when a person who is alcohol dependent suddenly stops drinking. Symptoms usually start within a few hours and consist of tremors, sweating, elevated pulse and blood pressure, nausea, insomnia, and anxiety. Generalized seizures may also occur. A second syndrome, alcohol withdrawal delirium, sometimes follows. Beginning after 1 to 3 days and lasting

2 to 10 days, it consists of an altered sensorium, disorientation, poor short-term memory, altered sleep-wake cycle, and hallucinations. Management typically consists of administering thiamine and benzodiazepines, sometimes together with anticonvulsants, beta adrenergic blockers, or antipsychotics as indicated. Mild withdrawal can be managed successfully in the outpatient setting, but more complicated or severe cases require hospitalization. (Consult references 37 and 38 on page 34 for additional information.)

Are laboratory tests available to screen for or monitor alcohol problems?

For screening purposes in primary care settings, interviews and questionnaires have greater sensitivity and specificity than blood tests for biochemical markers, which identify only about 10 to 30 percent of heavy drinkers.[39,40] Nevertheless, biochemical markers may be useful when heavy drinking is suspected but the patient denies it. The most sensitive and widely available test for this purpose is the serum gamma-glutamyl transferase (GGT) assay. It isn't very specific, however, so reasons for GGT elevation other than excessive alcohol use need to be eliminated. If elevated at baseline, GGT and other transaminases may also be helpful in monitoring progress and identifying relapse, and serial values can provide valuable feedback to patients after an intervention. Other blood tests include the mean corpuscular volume (MCV) of red blood cells, which is often elevated in people with alcohol dependence, and the carbohydrate-deficient transferrin (CDT) assay. The CDT assay is about as sensitive as the GGT and has the advantage of not being affected by liver disease.[41]

If I refer a patient for alcohol treatment, what are the chances for recovery?

A review of seven large studies of alcoholism treatment found that about one-third of patients either were abstinent or drank moderately without negative consequences or dependence in the year following treatment.[42] Although the other two-thirds had some periods of heavy drinking, on average they reduced consumption and alcohol-related problems by more than half. These reductions appear to last at least 3 years.[36] This substantial improvement in patients who do not attain complete abstinence or problem-free reduced drinking is often overlooked. These patients may require further treatment, and their chances of benefiting the next time don't appear to be influenced significantly by having had prior treatments.[42] As is true for other medical disorders, some patients have more severe forms of alcohol dependence that may require long-term management.

What can I do to help patients who struggle to remain abstinent or who relapse?

Changing drinking behavior is a challenge, especially for those who are alcohol dependent. The first 12 months of abstinence are especially difficult, and relapse is most common during this time. If patients do relapse, recognize that they have a chronic disorder that requires continuing care, just like asthma, hypertension, or diabetes. Recurrence of symptoms is common and similar across each of these disorders,[43] perhaps because they require the patient to change health behaviors to maintain gains. The most important principle is to stay engaged with the patient and to maintain optimism about eventual improvement. Most people with alcohol dependence who continue to work at recovery eventually achieve partial to full remission of symptoms, and often do so without specialized behavioral treatment.[44] For patients who struggle to abstain or who relapse:

- If the patient is not taking medication for alcohol dependence, consider prescribing one and following up with medication management (see pages 13–22).
- Treat depression or anxiety disorders if they are present more than 2 to 4 weeks after abstinence is established.
- Assess and address other possible triggers for struggle or relapse, including stressful events, interpersonal conflict, insomnia, chronic pain, craving, or high-temptation situations such as a wedding or convention.
- If the patient is not attending a mutual help group or is not receiving behavioral therapy, consider recommending these support measures.
- Encourage those who have relapsed by noting that relapse is common and pointing out the value of the recovery that was achieved.
- Provide followup care and advise patients to contact you if they are concerned about relapse.

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