

Substance Abuse: A Gnarly, Complex Arena
Linda Nakell, Ph.D. and Patty Hennigan, Ph.D.

1. Have a high level of suspicion—addiction is common.
2. Transference/counter-transference
3. Use/abuse---some people may drink or use some drugs without dependence or addiction.

Heavy use/abuse—considered more than 1 drink/day for women, 2 drinks/day for men, ever used: more than 4 drinks at any time for women; more than 5 drinks for men.

Tolerance—physiological need for increasing doses to maintain same effect

Dependence—physiological withdrawal and craving for drug in its absence

Addiction--Loss of control, compulsive use, negative consequences.

Psychological addiction—sometimes people may think they need a substance, although physiological dependence is absent (ie. marijuana).

4. Reward pathway—stimulants and opioids especially activate dopamine pleasure pathway that can become altered with continued use and physiological changes in the brain, hypersensitivity to drug.
5. Common co-morbid medical and psychiatric diagnoses include anxiety disorders, mood disorders, diabetes, hypertension, hepatitis C, pancreatitis, infections.
6. Brief intervention: **Non-judgmental approach!** Ask in conversational manner, not as interrogation.

“Do you drink alcohol or use drugs...ever?”

At-risk—exceed recommended guidelines.

Problem drinker/user—with associated problems such as drunk driving, legal problems, financial worries, missed work, medical problems

Dependent—compulsion and loss of control, CAGE 2 or above.

CAGE:

1. Have you ever felt you ought to CUT DOWN on your drinking?
2. Have people ANNOYED YOU by criticizing your drinking?
3. Have you ever felt bad or GUILTY about your drinking?
4. Do you drink in the morning or before work? (EYE OPENER)

Recommend:

- a) At-risk--"Based on my assessment, you are at-risk for future health problems. I advise you to CUT BACK/moderation or quit.
- b) Problem drinker/user or Dependence—assess stage of change (pre-contemplation, contemplation, preparation, action, maintenance, relapse), can use brief motivation interviewing (for example, "What do you enjoy/not enjoy about drinking/using?" "I can provide you with information should you wish to cut back or quit.")

Treatment options:

Detox (social), medically-based detox if justified by other diagnosis
Residential
Outpatient (including methadone maintenance, day treatment)
12-step: AA, NA
Psychotherapy
Pharmacological adjunctive treatment, treatment of co-occurring disorders.

RECOVERY: An active process of abstinence and psychological work.

RELAPSE: As with all chronic diseases, substance abuse recovery is fraught with relapse. A useful approach is to try to view the relapse as an expectable, predictable part of recovery and to encourage the patient to renew abstinence and learn about personal triggers from the relapse.

Prescription medication abuse—can be difficult to identify or distinguish from medication use:

Follow same basic model.

Consider pseudo-addiction (appearance of addiction due to under-treatment of pain, and/or withdrawal from short-acting narcotics)

Narcotic medicine contract.

Drug-testing to insure use of prescribed drugs and to look for use of illicit drugs.



Alameda County

BEHAVIORAL HEALTH CARE

Street Drugs - Slang Names and Other Information

Richard P. Singer, MD

Black Beauties? Goof Balls? Snow? Cloud Nine? Angel Dust? We've all heard various names of the street drugs our patients are taking but probably need to check many of them out further to be sure we know exactly what the drug really is. Treatment of mental illness is challenging enough without the added complications of drug use and abuse but unfortunately, that's where it's at these days.

In the mid-nineties a book titled "Uppers, Downers, All Arounders" was written by Darryl Inaba, Pharm. D. and William Cohen of the Haight-Ashbury Free Medical Clinics in San Francisco. An excellent drug information resource but no longer in print and hard to find. Since then however, the wonderful world of the Internet has evolved where hundreds of drug information websites abound. With most physicians' time being tighter than ever, particularly when sitting with a patient, this article will attempt to provide a synopsis of some of the information about many of the various drugs being used on the street. Additional resources, particularly on the Web, are available for expanded information, such as <http://www.drugfreeamerica.org> and <http://www.tcada.state.tx.us>.

DRUG	SLANG NAME	WHAT IT IS	HOW USED	EFFECTS
Amphetamines	Bennies, Black Beauties, Dexies, Jollies, Speed, Uppers, Ups, Wake ups	CNS Stimulant	Inhaled, injected swallowed	increased talk, aggressiveness, breathing, HR, BP; decreased appetite; dilated pupils, halluc.
Barbiturates	Barbs, Blockbusters, Christmas trees, Goof Balls, Pinks, Red devils, Reds and blues, Yellow Jackets	Sedatives, most commonly abused include Amytal, Nembutal and Seconal	swallowed or injected	slurred speech, shallow breathing, sluggishness, fatigue, disorientation, lack of coordination, dilated pupils; mimic alcohol inebriation causing mild euphoria, disinhibition, sleep
ie/Crack	Cocaine, Big C, Blow, Coke, Flake, Lady, Snowbirds, White Crack, Freebase, Rock	Potent brain stimulant. Cocaine HCL: white crystalline powder. Crack: cocaine HCL processed with ammonia or baking soda & water into a freebase cocaine - chips, chunks or rocks	snorted or dissolved in water and injected	constricted peripheral blood vessels, dilated pupils, increased temp, HR, BP; insomnia, loss of appetite, anxiety, restlessness, irritability
DOM, DOB, MDA, MDMA	Used at Graves, STP, Ecstasy, Nexus	variations of mescaline and amphetamine	oral or snorted	mood alterations, minor perceptual alterations or hallucinations
Dextromethorphan	Dex, Robo, Tusin, DXM	OTC semisynthetic narcotic in cough meds	swallowed	overdose: flushing, sweating, nausea, vomiting, diarrhea, confusion, high BP, irregular HR, abdominal pain, seizures, halluc.
Ecstasy	Adam, Bean, E, M, Roll, X, XTC - Tablet often branded e.g. Playboy bunnies, Nike swoosh, CK	MDMA or Ecstasy, synthetic with amphetamine-like & hallucinogenic props	oral	euphoria, confusion, depression, sleep disturb., drug craving, anxiety, paranoia, loss of appetite, increased HR, BP; nausea and vomiting
GHB	G, Georgia Home Boy, Grievous Bodily Harm, Liquid Ecstasy	mostly CNS depressant	orally (powder or liquid)	low dose: relaxation; high dose: sleep, coma, death
Herbal Ecstasy	Cloud 9, Rave Energy, Ultimate Xphoria, X	key ingredient Ephedrine, combo of legal herbs, marketed as "natural high"	swallowed, snorted or smoked	promises energy, sexual sensations; stimulates CV and CNS; possible high BP, diabetes, heart disease
Heroin	Big H, Blacktar, Brown, sugar, Dope, Horse, Junk, Mud, Skag, Smack	morphine derivative from opium, poppy; "downer" affecting brain's pleasure systems and ability to perceive pain	IV, IM, smoked	euphoria, warm, flushed skin, dry mouth, heavy extremities; then "on the nod", clouded mental functioning, slow slurred speech, slow gait, constricted pupils
Ketamine	Breakfast cereal, date rape drug, Ketaject, Ketalar, New Ecstasy, Psychedelic, heroin, Special-K, Super-K, Vitamin K	CNS depressant and rapid acting general anesthetic	liquid injectable, converted into a white powder & usually snorted	hallucinations with visual distortions and lost sense of time and identity; also delirium, impaired motor, potentially fatal respiratory problems

Brief Intervention in Primary Care Settings

A Primary Treatment Method for At-Risk, Problem, and Dependent Drinkers

MICHAEL FLEMING, M.D., M.P.H., AND LINDA BAIER MANWELL

Primary health care providers identify and treat many patients who are at risk for or are already experiencing alcohol-related problems. Brief interventions—counseling delivered by primary care providers in the context of several standard office visits—can be a successful treatment approach for many of these patients. Numerous trials involving a variety of patient populations have indicated that brief interventions can reduce patients' drinking levels, regardless of the patients' ages and gender. In clinical practice, brief interventions can help reduce the drinking levels of nondependent drinkers who drink more than the recommended limits, facilitate therapy and abstinence in patients receiving pharmacotherapy, and enhance the effectiveness of assessment and treatment referral in patients who do not respond to brief interventions alone. Despite the evidence for their usefulness, however, brief interventions for alcohol-related problems have not yet been widely implemented in primary care settings.

KEY WORDS: primary health care; intervention; risk factors; problematic AOD (alcohol and other drug) use; AOD dependence; amount of AOD use; treatment outcome; AOD abstinence; drug therapy; psychological counseling; treatment barriers; physician; AOD education; health care delivery; health care cost; social cost of AODU (alcohol and other drug use); literature review

Most Americans consume alcohol at least occasionally, and results from the National Household Survey (U.S. Department of Health and Human Services 1998) suggest that as many as 40 million Americans drink more than the moderate drinking levels recommended by the National Institute on Alcohol Abuse and Alcoholism (NIAAA) (1995). These drinkers are considered at-risk, problem, or dependent alcohol users (for definitions of different types of alcohol use, see textbox on p. 129).

Many people who are at risk for, or who are already experiencing, alcohol-related social and medical problems do not consult alcoholism treatment specialists but receive their health care from a primary care provider. Consequently, primary care settings offer an important opportunity to identify and treat people with potential drinking problems. Epidemiological analyses underscore the notion that primary care settings are pivotal in helping people with alcohol-related problems. For example, a prevalence study conducted in primary care

settings found that 20 percent of male patients and 10 percent of female patients

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who came to see their physicians met the criteria for at-risk, problem, or dependent alcohol use (Manwell et al. 1998). Furthermore, 70 percent of American adults visit a physician at least once every 2 years for a routine physical examination or a specific health problem, suggesting that primary care providers potentially can identify and treat a substantial proportion of people experiencing alcohol-related adverse effects.

One treatment method that has proved to be effective in primary care settings is physician-delivered brief intervention (Fleming et al. 1997, 1999; Ockene et al. in press). This article describes the brief intervention approach, its essential components, and evidence for its effectiveness. In addition, the article discusses the current application of brief intervention in the U.S. health care system as well as barriers to its implementation. Finally, the article proposes measures that may help overcome those barriers.

ESSENTIAL ELEMENTS OF BRIEF INTERVENTION

The term "brief intervention" refers to a time-limited, patient-centered counseling strategy that focuses on changing patient behavior and increasing patient compliance with therapy. Although this article focuses on the use of brief intervention for changing alcohol use patterns, this approach is not unique to the treatment of alcohol problems. In fact, physicians and other health care professionals widely employ this technique to help patients change a variety of behaviors (e.g., to modify dietary habits; stop smoking; and reduce weight, cholesterol levels, or blood pressure).

In general, brief intervention consists of the following five essential steps (also see textbox on p. 130):

- *Assessment and direct feedback.* The health care provider assesses the patient's alcohol use and the presence of alcohol-related problems using, for example, the four-item CAGE questionnaire.¹ The provider then expresses his or her concern regarding the patient's drinking pattern,

linking, when appropriate, the alcohol use to a medical problem, such as high blood pressure (i.e., hypertension) or inflammation of the stomach lining (i.e., gastritis).

- *Negotiation and goal setting.* The treatment provider and patient agree on a mutually acceptable goal for reducing alcohol use (e.g., the moderate drinking levels recommended by the NIAAA [1995]).
- *Behavioral modification techniques.* The health care provider helps the patient to identify high-risk situations in which drinking will likely occur, such as family celebrations or stressful situations at work. The provider also familiarizes the patient with coping techniques for managing such high-risk situations and with ways for establishing a support network to help in this process.

¹The CAGE, a widely used screening test for alcoholism, includes the following four questions: (1) Have you ever felt you should cut down on your drinking?; (2) Have people Annoyed you by criticizing your drinking?; (3) Have you ever felt Guilty about your drinking?; and (4) Have you ever had a drink first thing in the morning to steady your nerves or to get rid of a hangover (Eye opener)?

DEFINING MODERATE, AT-RISK, PROBLEM, AND DEPENDENT ALCOHOL USE

According to guidelines published by the National Institute on Alcohol Abuse and Alcoholism in 1995, *moderate*, or low-risk, alcohol use is defined as consumption of no more than two standard drinks per day for men and no more than one standard drink per day for women and people over age 65. A standard drink is defined as one 12-ounce beer or wine cooler, one 5-ounce glass of wine, or 1.5 ounces of distilled spirits. Each of these standard drinks contains approximately 0.5 ounce, or 14 grams, of pure alcohol.

At-risk alcohol use is defined as consumption of more than 7 drinks per week or more than 3 drinks per occasion for women and more than 14 drinks per week or more than 4 drinks per occasion for men. A positive response to one or more questions on the four-item CAGE questionnaire (see footnote 1 below) also may indicate at-risk use. *Problem* alcohol use is defined as one or more positive responses to the CAGE questionnaire and evidence of alcohol-related medical or behavioral problems. *Dependent* use is defined as either three or four positive responses to the CAGE questionnaire and/or evidence of one or more symptoms of alcohol dependence (i.e., compulsion to drink, impaired control over drinking, withdrawal symptoms, drinking to relieve withdrawal, and increased tolerance to alcohol).

- *Self-help-directed bibliotherapy.* For reinforcement, the health care provider supplies the patient with informational materials on alcohol use and its associated problems as well as on behavioral modification exercises.

- *Followup and reinforcement.* To ensure the long-term effectiveness of the brief intervention, the health care provider establishes a system for conducting supportive telephone consultation and followup visits with the patient.

A health care provider usually can conduct brief intervention incorporating these components during a standard 5- to 10-minute office visit. The number of visits required to ensure treatment success can vary, but studies suggest that three to four visits, or a combination of clinic visits and followup telephone consultations, can increase the effectiveness of the brief intervention (Wallace et al. 1988; Kristenson et al. 1983; Anderson and Scott 1992; Fleming et al. 1997). Intervention workbooks that guide the health care provider through brief intervention and "drinking diary cards" that help the patient track his or her alcohol consumption can be useful

tools for focusing the provider-patient discussion and for facilitating behavior change (Fleming et al. 1997).² Finally, more extensive counseling sessions with a clinic health educator or nurse can supplement the brief intervention delivered by the primary care provider.

EVIDENCE OF BRIEF INTERVENTION'S EFFECTIVENESS IN PRIMARY CARE SETTINGS

Clinical trials have demonstrated that brief intervention administered in a variety of treatment settings can reduce alcohol use for at least 12 months in patients who are not alcohol dependent. At least 20 trials conducted in medical clinics have been reported in the medical literature. Meta-analyses performed by Bien and colleagues (1993), Kahan and colleagues (1995), and Wilk and colleagues (1997) found that most brief intervention trials showed a positive outcome, as indicated by reduced consumption levels. Furthermore, these analyses suggested that clinicians could expect 10 to 30 percent of their patients to change their drinking behaviors as a result of brief intervention.

Few published trials of brief intervention have been performed exclusively in community-based primary care settings. However, studies conducted by Wallace and colleagues (1988), Israel and colleagues (1996), Fleming and colleagues (1997, 1999), and Ockene and colleagues (in press) have presented compelling evidence to support the effectiveness of brief intervention in primary care settings. Another trial of brief intervention, conducted in a variety of settings by the World Health Organization (WHO) Brief Intervention Study Group (1996), also found positive outcomes associated with brief intervention. The validity of these findings is further supported by the fact that all these trials included large sample sizes and highly diverse patient populations. For a sum-

THE FIVE ESSENTIAL STEPS OF BRIEF INTERVENTION*

Step I. Assessment and Direct Feedback

Ask questions regarding alcohol consumption.

Ask CAGE questions.**

Assess medical, behavioral, and dependence problems.

- *As your physician, I am concerned about how much you drink and how it is affecting your health.*
- *Less than 10 percent of men drink as much as you do.*
- *You are drinking alcohol at a level that puts you at serious risk for a number of alcohol-related problems.*

Step II. Negotiation and Goal Setting

- *You need to reduce your drinking.*
- *What do you think about cutting down to three drinks two to three times per week?*
- *Can you reduce your alcohol use for the next month?*

Step III. Behavioral Modification Techniques

- *Here is a list of situations when people drink and sometimes lose control of their drinking. Let's talk about ways you can avoid these situations.*
- *Can you identify a family member or a friend who can help you?*
- *What are the things you like about drinking?*
- *What are some of the things you don't like about your alcohol use?*

Step IV. Self-Help-Directed Bibliotherapy

- *I would like you to review this booklet and bring it with you to your next visit. It would be helpful if you would complete some of the exercises in the booklet.*

Step V. Followup and Reinforcement

- *I would like you to return to the clinic in 1 month to see if you have been able to change your drinking.*
- *My nurse will call you in 2 weeks to check on your progress.*
- *I would like you to keep track of your drinking by using these diary cards. Bring them with you to your followup visit in 1 month.*

²Sample copies of intervention workbooks and drinking diary cards, which were developed for Project TrEAT (Trial for Early Alcohol Treatment), are available from the authors of this article.

*The italicized items indicate sample statements or questions that a primary care physician might use with his or her patients.

**See footnote 1 on p. 129.

y of the designs and major findings of these trials, see the table on pp. 132–133.

Brief intervention appears to be effective for both men and women as well as across all age groups. To date, only one study has suggested that brief intervention may be more effective for women than for men (Sanchez-Craig 1990). Conversely, the six trials mentioned in the previous paragraph all found that brief intervention led to similar reductions in alcohol consumption for men and women. Furthermore, when Fleming and colleagues (1997) analyzed the effectiveness of brief intervention for patients of different ages in Project TrEAT (Trial for Early Alcohol Treatment), they found no difference in treatment effectiveness across age groups. However, only one trial has been conducted exclusively with older adults. In that study, called Project GOAL (Guiding Older Adult Lifestyles), brief intervention led to a 20-percent reduction in drinking levels in a sample of 158 older adults ages 65 to 85 (Fleming et al. 1999).

Brief intervention can reduce not only the drinking levels of problem drinkers but also their health care utilization for related medical conditions. For example, as part of a study conducted in the late 1970s that focused on the prevention of cardiovascular disease, all men ages 46 to 53 residing in Malmö, Sweden, were invited to participate in a screening for cardiovascular disease, diabetes, and heavy drinking (Kristenson et al. 1983). The study identified 585 men with elevated blood levels of the enzyme gamma-glutamyl transferase (GGT), an indicator of long-term excessive alcohol consumption. The men were randomly assigned to either an experimental or control group. Over a study period of 12 months, the men in the experimental group received a brief intervention consisting of a consultation with their physician every 3 months, a monthly GGT test, and monthly contact with a nurse. The control group only received a letter with their initial GGT results and advice to reduce their alcohol consumption. The study found long-term (i.e., for 5 years after study entry) reductions in hospital work days, and mortality in the experimental group compared with the

control group. Project TrEAT, which included 774 patients ages 18 to 65 who were randomly assigned either to a brief intervention group or to a control group, also reported a significant decrease in hospital days in the intervention group compared with the control group (Fleming et al. 1997). At the 1-year followup, the control group had required twice as many hospital days as had the intervention group. For a more detailed description of both trials, see the table.

In most trials on the effectiveness of brief interventions, physicians delivered the interventions. For example, in the study by Wallace and colleagues (1988), 47 physicians throughout Great Britain were trained to administer the brief intervention protocol in their practices. Similarly, Project TrEAT recruited 64 family physicians from 10 counties in southern Wisconsin to participate in training programs and successfully complete the required research protocol (Fleming et al. 1997). However, other health care professionals, such as nurse practitioners, also can be taught to successfully conduct brief intervention. For example, Project HEALTH, which was conducted in Massachusetts and included 46 physicians and nurse practitioners (26 attending physicians, 12 resident physicians, and 8 nurse practitioners), had similar success rates in reaching clinicians to conduct brief intervention, as did the trials involving only physicians (Ockene et al. in press).

Unanswered Questions

Although many of the clinical trials conducted to date have strongly supported the notion that brief intervention can be an effective tool for reducing the drinking levels of people at risk for or experiencing alcohol-related problems, numerous questions remain, including the following:

- Does brief intervention reduce overall health care costs?
- Does brief intervention reduce alcohol use for more than 12 months,

the most frequent followup period in the trials?

- Does brief intervention delivered in emergency departments and hospitals, rather than by primary care physicians, reduce rates of alcohol-related problems, such as accidents and injuries?
- Does brief intervention for women at risk for alcohol use during pregnancy reduce the rates of fetal alcohol exposure?
- Does brief intervention work better when combined with pharmacotherapy?
- Is brief intervention more or less effective when performed by the patient's personal health care team rather than by a researcher who has no prior relationship with the patient?
- How can physicians and managed care organizations be convinced to implement brief intervention in primary care settings?

Many of these questions are being addressed by a dozen trials funded by the NIAAA and other Federal agencies that are either ongoing or have been completed recently but have not yet been reported in the literature.

Additional issues have been raised by several brief intervention trials that found only minimal differences between experimental groups receiving brief intervention and control groups (Richmond et al. 1995; Senft et al. 1997; Burge et al. 1997; Chang et al. in press). Each of those trials found large reductions in alcohol use in both the experimental and control groups. Several factors may explain this observation. First, the research procedure itself, which included questions about alcohol use on multiple occasions for all study subjects, may have exerted an intervention effect. In that case, simply drawing attention to a patient's excessive drinking may have positively influenced the patient's drinking behavior. Second, the reduction in alcohol use could result

Design and Major Results of Selected Brief Intervention Trials

Researchers and Study/Study Site	Selection Process	Population of Interest and Sample Size	Intervention Protocol and Drop-Out Rates	Results
Kristenson et al. 1983 Malmö, Sweden (community health centers)	Men participating in a screening for cardiovascular disease, diabetes, and heavy drinking	Men ages 46–53 Exp = 317 Cont = 268	Exp: physician consultation every 3 mo, monthly GGT test, monthly nurse contact Cont: informed of GGT by letter, told to cut down, had further liver tests after 2 yr Followup: 2, 4, and 5 yr. Drop out: unknown	GGT values reduced in both groups; significant reduction in sick days, hospital days, and mortality in exp compared with cont; alcohol use not determined
Chick et al. 1985 Royal Edinburgh Hospital, Edinburgh, Scotland	Consecutive admissions of at least 48-h duration	Men ages 18–65 in one of four medical wards Exp = 78 Cont = 78	Exp: counseling with nurse up to 1 h, self-help booklet Cont: nurse assessment Followup: 12 mo Drop out: exp = 12%, cont = 18%	No significant difference in alcohol consumption at 12 mo; reduced alcohol-related problems and reduced GGT in exp
Wallace et al. 1988 MRC Trial, England (rural and small urban general practices)	Mailed and in-practice questionnaires Consumption: men—35+ units/wk, women—21+ units/wk	Male and female patients in general medical practices Exp: 319 men, 131 women Cont: 322 men, 137 women	Exp: physician assessment, booklet, told to cut down Cont: no advice unless requested by patient or evidence of liver impairment Followup: 6 and 12 mo Drop out after 6 mo: men—15%, women—13% Drop out after 12 mo: men—19%, women—17%	At 6 and 12 mo, significant reduction in drinking for exp compared with cont; GGT and blood pressure reduced in exp men
Persson and Magnusson 1989 Sweden (outpatient clinics)	Questionnaires and GGT levels Consumption: men—200+ g/wk, women—150+ g/wk, GGT greater than 0.6	Patients ages 15–70 attending outpatient clinics Exp = 36 Cont = 42	Exp: physician interview, monthly nurse followup, quarterly physician followup, told to cut down Cont: initial questionnaire, no discussion on consumption, blood samples at 12 mo Followup: 12 mo Drop out: 0%	Consumption, triglycerides, GGT, and sick days decreased in exp; sick days increased in cont; no followup alcohol data available for cont
Nilsson 1991 Tromsø, Norway	Questionnaire and GGT levels	Male and female patients ages 20–62 Exp 1 = 113 Exp 2 = 113 Cont = 112	Exp 1: brief health counseling Exp 2: counseling sessions specifically alcohol focused Followup: 12 mo Drop out: 5%	Significant differences between exp and cont for alcohol use and GGT levels; no differences between exps
Anderson and Scott 1992 Oxford Regional Health Authority, England (eight group practices)	Self-administered questionnaires disseminated in office and by mail Consumption: 350–1,050	Men ages 17–69 in general medical practice settings Exp = 80 Cont = 74	Exp: physician advice for 10 min, self-help booklet Cont: no advice, self-help booklet Followup: 12 mo Drop out: exp—24%, cont—36%	Exp showed significant decrease in consumption compared with cont
Maheswaran et al. 1992 Hypertensive Clinic, Dudley Road Hospital, England	Referral by general practitioners Consumption: 20+ units/wk	Men drinking more than 20 units/wk Exp = 22 Cont = 23	Exp: 10- to 15-min sessions advising to cut down or abstain, advice reinforced at subsequent visits Cont: no intervention Followup: 8 wk Drop out: exp—5%, cont—13%	Significantly greater reduction in alcohol consumption and in standing diastolic blood pressure in exp

continued

Researchers and Study/Study Site	Selection Process	Population of Interest and Sample Size	Intervention Protocol and Drop-Out Rates	Results
Marlatt et al. 1998 University of Washington, Seattle, WA (student health services)	Students screened during senior year of high school and then randomly assigned during freshman year of college	Students ages 18–25 160 men 188 women	Exp: health educator, 4-session intervention Cont: routine medical care Followup: 24 mo Drop out: 13%	Significant reduction in both drinking rate and harmful consequences
Israel et al. 1996 Cambridge, Ontario (primary care practices)	TRAUMA scale instrument given to patients ages 30–60	Males and females attending family medicine clinics Exp = 52 Cont = 53	Exp: 20-min counseling with nurse educator every 2 mo for 1 yr, self-help pamphlet Cont: brief advice, self-help pamphlet Followup: 12 mo Drop out: 30%	Both groups showed reduction in alcohol consumption; exp showed significant reduction in psychosocial problems, physician visits, and GGT
WHO Brief Intervention Study Group 1996 WHO 10-nation study various settings	Interviews at ERs, hospitals, clinics, workplaces, and health-screening agency Consumption: men—350+ g/wk, women—225+ g/wk	Cross-cultural 1,260 men 299 women	Exp 1: 20-min interview, 5 min of advice, pamphlet Exp 2: interview, 5 min of advice, 15 min of counseling, pamphlet Control: interview Followup: minimum 6 mo, average 9 mo Drop out: 25%, varying by center	Significant reduction in alcohol use and binge drinking in exps for males: significant reductions for all groups for women; exps 1 and 2 were equally effective
Fleming et al. 1997 Project TrEAT Southern Wisconsin (64 community-based primary care physicians in 10 counties)	In-office questionnaires given to all patients ages 18–65 with regular appointments Consumption: men—15+ drinks/wk, women—12+ drinks/wk, binge drinking, positive CAGE responses	Men and women ages 18–65 attending primary care clinics Exp = 392 Cont = 382	Exp: two 15-min physician visits, self-help book, drinking diary cards, drinking contract, two nurse-followup calls Cont: general health booklet Followup: 6, 12, 24, 36, and 48 mo Drop out: 7% at 12 mo, 11% at 24 mo, 17% at 48 mo	Significant reduction in 7-day alcohol use, binge drinking, frequency of excessive drinking, and length of hospitalization in exp compared with cont
Fleming et al. 1999 Project GOAL Southern Wisconsin (43 community-based primary care physicians in 10 counties)	In-office questionnaires given to all patients age 65 or older with regular appointments Consumption: men—12+ drinks/wk, women—9+ drinks/wk, binge drinking, positive CAGE responses	Men and women ages 65 or older attending primary care clinics Exp = 87 Cont = 71	Exp: two 15-min physician visits, self-help book, drinking diary cards, drinking contract, two nurse-followup calls Cont: general health booklet Followup: 3, 6, 12, and 24 mo Drop out: 8% at 12 mo, 12% at 24 mo	Significant reduction in 7-day alcohol use, episodes of binge drinking, and frequency of excessive drinking in exp compared with cont
Ockene et al. in press Project Health University of Massachusetts Memorial Healthcare Inc. (four primary care internal medicine practice sites)	Adults with regular appointments interviewed by phone, mail, or during visit to primary care center Consumption: men—13+ drinks/wk, women—10+ drinks/wk, binge drinking, positive CAGE responses	Men and women ages 21–70 attending internal medicine clinics Exp = 274 Cont = 256	Exp: two 5- to 10-min physician or nurse practitioner visits, general health booklet Cont: general health booklet Followup: 6 mo Drop out: 9%	Significant reduction in weekly alcohol consumption and excessive drinking in exp compared with cont

Cont = control group not receiving brief intervention; exp = experimental group receiving specified brief intervention; g/wk = grams of alcohol per week; GGT = gamma-glutamyl transferase, an enzyme that serves as an indicator of excessive long-term alcohol consumption; h = hour(s); min = minute(s); mo = month(s); yr = year(s).

from a phenomenon called "regression to the mean," which occurs because of the natural variability in alcohol use. This means that some patients will have been screened and enrolled in the study at time points at which their alcohol consumption was abnormally high compared with their average consumption over time. In such patients, subsequent consumption measurements will tend to gravitate back to their average consumption levels. Third, reduced drinking levels in the control subjects may be related to normal changes in alcohol use that occur in any person over time.

THE ROLE OF BRIEF INTERVENTION IN THE TREATMENT OF PEOPLE WITH ALCOHOL PROBLEMS

Brief intervention can be useful for the treatment of at-risk, problem, and dependent drinkers, although the specific purpose of brief intervention may differ for each of these patient groups. Thus, three types of clinical situations exist in which brief intervention is used. First, brief intervention can help reduce alcohol use and the risk of alcohol-related problems in nondependent drinkers who consume alcohol amounts above the recommended limits (i.e., at-risk and problem drinkers). The goal of brief intervention with this population is to reduce alcohol use to low-risk levels, thereby minimizing the drinkers' risk of developing alcohol-related social and medical problems. Thus, the aim of brief intervention for these drinkers is not so much abstinence as harm reduction. For example, in young men, total mortality and the relative risk³ of dying from violent causes increase with increasing alcohol consumption (see figure 1). Therefore, if brief intervention can reduce alcohol use in young men from five standard drinks (i.e., 60 grams of pure

alcohol) per day to two standard drinks (i.e., 28 grams of pure alcohol) per day, those men's relative risk for dying decreases fivefold (Andreasson et al. 1988). Similarly, the relative risk of developing and dying from liver cirrhosis rises with increasing alcohol consumption (figure 2) (Anderson et al. 1993) and could be reduced by brief intervention-associated reductions in drinking levels.

A second clinical situation in which brief intervention may be useful is to facilitate medication compliance and abstinence in patients who are being treated with pharmacological therapies for alcohol dependence and coexisting psychiatric conditions, such as depression. Failure to continue taking their medication (i.e. noncompliance) is a major issue with these patients, a problem that brief intervention may ameliorate. For example, O'Connor and colleagues (1997) found that alcohol-dependent patients treated with either

disulfiram or naltrexone⁴ were more likely to respond to and remain on their medication if they also received brief counseling. Similar benefits of brief intervention were noted in people treated with antidepressant medications. As more effective pharmacological agents become available, brief intervention is likely to become an increasingly important treatment strategy.

The third clinical situation in which brief intervention is beneficial involves alcohol-dependent patients or patients with alcohol-related problems who do not respond to this intervention alone. Although brief intervention by itself is not sufficient in these cases, it can help health care providers identify those patients and refer them to specialized treatment. Most patients who are referred for an assessment of their alcohol-related problems or for counseling either do not schedule an appointment or fail to keep the scheduled assessment (Bernstein

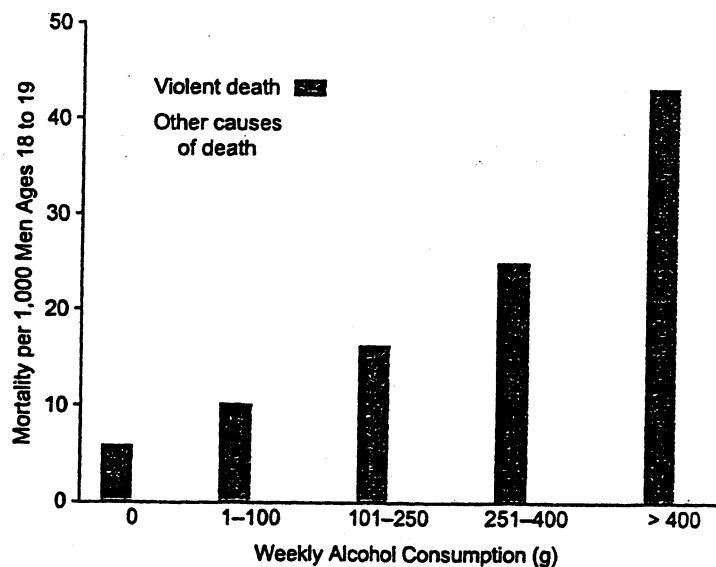


Figure 1 The relationship between alcohol use (grams [g] of alcohol per week) and mortality (deaths per 1,000), both from violence (blue bars) and from causes other than violence (yellow bars), in young men ages 18 to 19. The risk of violent death increases steadily with increasing alcohol consumption. Conversely, the risk of death from other causes remains relatively low at a consumption level less than 400 g alcohol (or 28 standard drinks) per week but increases substantially with a weekly alcohol consumption of more than 400 g.

Source: Andreasson et al. 1988.

³The "relative risk" is the ratio of the incidence of an event (e.g., a violent death) in alcohol-exposed people to the incidence of that event in nonexposed people.

⁴Disulfiram is a medication that causes an unpleasant reaction (e.g., flushing, nausea, and vomiting) when a person ingests alcohol. Naltrexone can reduce craving for alcohol in alcohol-dependent people.

et al. 1997). In the terms of problem-behavior modification (Prochaska and DiClemente 1992), the patients are still at the "precontemplation stage" and have not yet reached the "action stage." For patients in the precontemplation stage, the health care provider must address their ambivalence, resistance, and fears to ensure a successful referral. Brief intervention can greatly facilitate this process and increase the rates of successful assessment completion and admission to a treatment program (Bernstein et al. 1997).

RELATIONSHIP OF BRIEF INTERVENTION AND OTHER APPROACHES

A variety of alcoholism treatment approaches exist, ranging from physician-delivered brief intervention to intensive inpatient therapy. Brief intervention is primarily based on motivational enhancement therapy. In addition, brief intervention uses many elements of 12-step-based methods and cognitive behavioral therapy. Nevertheless, brief intervention differs from these three

types of interventions—which primarily are administered as long-term therapy—in two respects. First, brief intervention frequently is not aimed at achieving complete abstinence but focuses on harm reduction and on increasing the patient's readiness to change his or her behavior. Second, the total number of visits during which brief intervention is delivered is limited.

Several strategies can help clinicians achieve their goals in the limited time-frame available for brief intervention:

- The physician can emphasize specific medical problems related to a patient's alcohol consumption to raise the patient's awareness that alcohol use can lead to serious health problems.
- The clinician can provide the patient with a written contract (in the form of a prescription) that specifies goals for reducing drinking levels.
- In many cases, if the physician has had a long-term and trusting relationship with the patient, the physician can influence the patient to change his or her behavior.

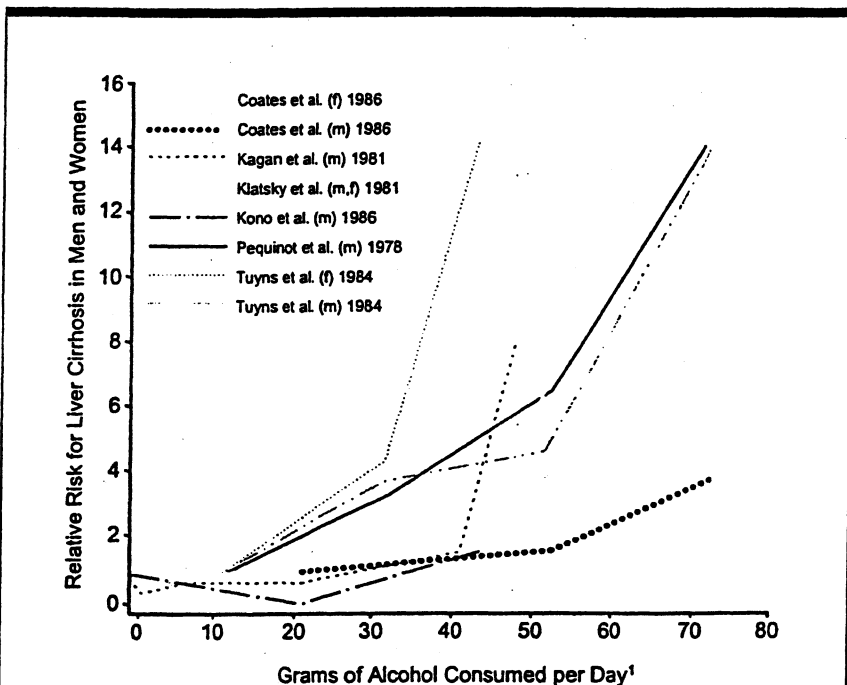


Figure 2 The relationship in men and women between alcohol use (i.e., grams of alcohol per day [g/day]) and the relative risk of developing liver cirrhosis. The lines represent the results of six different studies. In each of these studies, the risk for liver cirrhosis increased with increasing alcohol consumption.

¹Data for alcohol consumption greater than 70 g/day are not shown.

f = female subjects; m = male subjects.

NOTE: References for the six studies are as follows: Coates, R.A.; Halliday, M.L.; Rankin, J.G.; Feinman, S.V.; and Fisher, M.M. Risk of fatty infiltration or cirrhosis of the liver in relation to ethanol consumption: A case-control study. *Clinical and Investigative Medicine—Medicine Clinique et Experimentale* 9:26–32, 1986. Kagan, A.; Yano, K.; Roads, G.; and McGee, D.L. Alcohol and cardiovascular disease: The Hawaiian experience. *Circulation* 64(3):1127–31, 1981. Klatsky, A.L.; Friedman, G.D.; and Seigelaub, A.B. Alcohol and mortality: A ten-year Kaiser Permanente experience. *Annals of Internal Medicine* 95:139–145, 1981. Kono, S.; Ikeda, M.; Tokudome, A.; Nishizumi, M.; and Kuratsune, M. Alcohol and mortality: A cohort study of male Japanese physicians. *International Journal of Epidemiology* 15:527–532, 1986. Pequinot, G.; Tuyns, A.J.; and Berta, J.L. Ascitic cirrhosis in relation to alcohol consumption. *International Journal of Epidemiology* 7:113–120, 1978. Tuyns, A.J., and Pequinot, G. Greater risk of ascitic cirrhosis in females in relation to alcohol consumption. *International Journal of Epidemiology* 14:53–57, 1984.

SOURCE: Anderson et al. 1993.

IMPLEMENTING BRIEF INTERVENTION IN PRIMARY CARE

Many studies have demonstrated that brief intervention delivered in a primary care setting can be an effective way to help at-risk or problem drinkers change their drinking behavior, thereby ameliorating or preventing alcohol-related health and other problems. Nevertheless, brief intervention has not yet been widely implemented in primary care settings. Several factors contribute to this lack of implementation.

First, health care settings today are complex systems involving numerous parties, including patients, health care providers, purchasers (e.g., employers and governmental agencies), and payers (e.g., insurance companies and health maintenance organizations). All of these parties have specific and sometimes

competing agendas. For example, health care providers are primarily interested in providing the most effective care to their patients (including screening for potential health problems, such as excessive alcohol use), whereas purchasers and payers also are interested in cost containment. To enhance the implementation of brief intervention, health care purchasers and payers need to provide financial support and leadership. To achieve this goal, both purchasers and providers of health care insurance must realize that the prevention and treatment of alcohol problems will improve their clients' health, thereby reducing both health care and social costs. Professional organizations must more actively work with payers and providers to allocate resources that accurately reflect the adverse effects of alcohol problems on the health care industry and on the health of the American people.

Second, many clinicians do not receive adequate skills training in conducting brief intervention. Furthermore, clinicians often are not compensated or rewarded for conducting clinical activities related to the prevention and treatment of alcohol problems. Several steps can help remedy those barriers. For example, clinicians should attend training workshops on how to make brief intervention for alcohol problems an essential component of their regular clinical activities. The workshops should focus on skills-training activities, using role-play exercises and standardized patients (i.e., lay people trained to consistently replicate a clinical encounter). Quality improvement programs, which are being implemented throughout the health care system, also can provide a unique opportunity to change clinician practice behavior. Many of these programs currently do not cover alcoholism screening and intervention; however, the establishment of monitoring systems to examine alcohol use in patients being treated for hypertension, depression, or anxiety disorders could significantly change practice patterns. Such incentives as financial reimbursement, paid education time to attend training workshops, and quality-improvement peer review programs also may encourage clinicians to implement alcohol

screening and intervention in their practices.

Third, brief intervention may be particularly difficult to implement in clinic settings, which already must accommodate a wide range of clinical tasks and activities, such as routine physicals, treatment of acute medical problems (e.g., trauma, infections, anxiety, and headaches), management of chronic conditions (e.g., depression, hypertension, and diabetes), and prevention programs (e.g., breast cancer screening, nutrition and diet counseling, and immunizations). To implement and maintain alcohol screening and intervention in clinic settings, procedures must be developed to incorporate brief intervention into routine clinical care. Measures such as self-administered screening tests, incorporation of alcohol-related questions in the assessment of routine vital signs, and computerized reminder systems alerting clinicians to screen clients for alcohol problems can help identify patients who may benefit from brief intervention. Additional reminders (e.g., for followup) can be attached to the clients' medical records or posted in another prominent location. Self-help booklets, alcohol consumption diary cards, lists of self-help group meetings (e.g., Alcoholics Anonymous), and referral information with telephone numbers and names of alcoholism treatment specialists can assist clinicians and clients in establishing followup plans and strategies.

Fourth, the implementation of brief intervention often is prevented by the lack of integration of alcohol and other drug (AOD) treatment into primary care systems. Alcoholism treatment has historically occurred outside the traditional medical care system, and many alcoholism treatment programs are free standing and community based. Lack of communication between such specialized treatment programs and the client's primary health care providers can have serious adverse effects on a patient's long-term sobriety. For example, in contrast to other specialty referral systems (e.g., medical and surgical specialty clinics), AOD treatment programs do not routinely send copies of the assessment, treatment plan, or discharge

summary to the client's health care provider. Similarly, AOD treatment specialists do not routinely call the client's physician or therapist to coordinate and jointly develop long-term treatment plans. Concerns about patient confidentiality may prevent the free flow of information between the specialized treatment program and the primary health care provider. Clients with alcohol problems, however, deserve treatment providers who communicate and work together to provide coordinated, comprehensive care.

Consequently, the integration of specialized alcoholism treatment into the general medical care system is an important component in enhancing the implementation of brief intervention. Two measures can facilitate an integrated treatment process of brief intervention and referral to specialized treatment:

- Alcoholism treatment programs should be located in close physical proximity to primary care offices, because physicians are more likely to refer clients to and communicate with a trusted colleague whose office is down the hall rather than make referrals to a stranger whose practice is located many miles away in a different system of care. Local proximity between primary care and specialized care providers also makes it easier for clients to accept and follow through with a referral.
- Communication between primary care and alcoholism treatment providers can be increased by encouraging primary health care providers to send referral letters to and request clinical updates from alcoholism treatment programs. Conversely, treatment programs should be encouraged to have their patients sign medical release forms that allow the programs to send assessments and treatment plans back to the primary health care provider. Such releases also allow primary care providers and alcoholism counselors to communicate directly by telephone to discuss treatment options. Ideally, primary care physicians and AOD

treatment specialists should be members of one comprehensive medical care team.

SUMMARY

Brief interventions are counseling strategies that primary care physicians can deliver during routine office visits to help clients change their drinking behavior (or any other health-related behavior). Numerous studies have suggested that brief intervention can reduce alcohol consumption in a substantial number of at-risk or problem drinkers and can facilitate the referral of dependent drinkers into specialized alcoholism treatment. As a result, brief intervention can help prevent or ameliorate numerous alcohol-related medical and social problems and the associated costs. Despite the encouraging results regarding the effectiveness of brief intervention, however, such measures have not yet been widely incorporated into primary care practices. Factors contributing to this lack of implementation include the complexity of the health care system, inadequate physician training, and lack of integration of AOD treatment into general medical practice. Coordinated efforts of health care providers, purchasers, and payers can help remove these barriers, thereby ensuring that patients with alcohol-related problems receive the comprehensive care they need. ■

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Brief Intervention for Alcohol Problems in Primary Care

Case Study and Commentary, *Richard D. Blondell, MD*

Introduction, *Bryon Adinoff, MD, Kathy Dohoney, PsyD, and Richard D. Blondell, MD*

INSTRUCTIONS

ICOM CME The following case study, "Brief Intervention for Alcohol Problems in Primary Care," is accompanied by a continuing medical education (CME) evaluation that consists of 6 multiple-choice questions. After reading the case study, carefully consider each of the questions in the CME evaluation on page 73. Then, circle your selected answer to each question on the CME evaluation form on page 74. In order to receive one CME credit, at least 4 of the 6 questions must be answered correctly. The estimated time for this CME activity is 1 hour.

OBJECTIVES

ICOM CME After participating in the CME activity, primary care physicians should be able to:

1. Screen patients for alcohol problems.
2. Classify alcohol use patterns on the basis of health risk.
3. Assess patients for the biomedical and psychosocial complications of alcohol abuse.
4. Identify at-risk and dependent drinkers.
5. Determine a patient's willingness to change unhealthy behaviors.
6. Advise appropriate action based on a patient's level of risk for alcohol-related problems.

INTRODUCTION

Alcohol use is associated with 100,000 deaths per year and an annual cost of \$100 billion in the United States [1]. The prevalence of alcohol abuse and dependence is estimated to be 7% to 10%, and the lifetime prevalence is estimated to be 13% to 24% [2]. The American Medical Association estimates that 25% to 40% of patients in general hospital beds are being treated for illnesses secondary to alcohol problems [3]. Alcohol use plays a part in many medical complications and has been linked with high-risk sexual behavior, family violence, homicide, and suicide [4,5]. It contributes to a large percentage of deaths caused by falls, fires, and other unintentional injuries, and is estimated to be a factor in about 44% of all traffic fatalities [1,6].

Perhaps the most challenging aspect of treating alcohol use disorders is identifying early-stage alcohol abuse, which

may not evidence many symptoms and may go unrecognized during routine visits. Without this critical first step of identification, there will be no treatment. It is estimated, for example, that only one-third of patients with coexisting alcohol problems admitted to a general hospital are appropriately diagnosed by their physician [7], and just half of alcohol-dependent patients presenting for treatment believe their primary physician is aware of their drinking problem [8]. Thus, it seems that a majority of patients with problematic drinking or alcohol dependence remain undiagnosed.

Primary care physicians often are the only health care providers seen by their patients. It is therefore critical that these physicians be prepared to identify alcohol problems early and to advise appropriate action. The National Institute on Alcohol Abuse and Alcoholism (NIAAA) has published guidelines for screening for alcohol problems and providing brief interventions [9]. The NIAAA recommends a four-step process: 1) ask about alcohol abuse, 2) assess for alcohol-related problems, 3) advise appropriate action, and 4) monitor patient progress. An algorithm comprising these steps is shown in Figure 1.

Primary care physicians can play an important role in the care of patients who have alcohol problems or who are at risk for alcohol problems. Continuity of care provides a unique opportunity to evaluate patients over time so that they may be effectively assessed [10]. Compassionate longitudinal care during the natural course of alcohol problems, with a focus on the long-term goal, can help bring the patient one step closer to that goal during each office visit.

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BRIEF INTERVENTION FOR ALCOHOL PROBLEMS

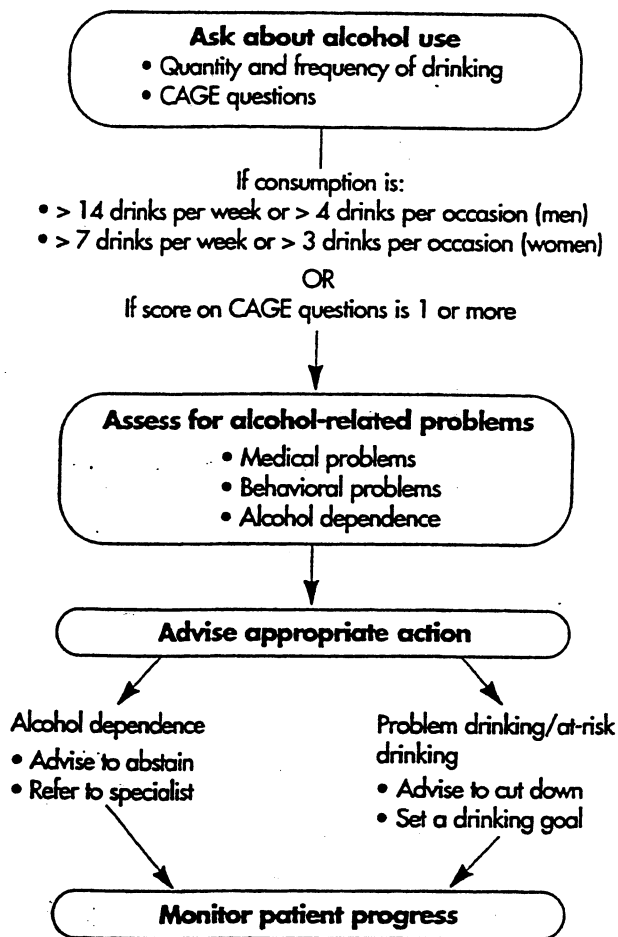


Figure 1. Approach to alcohol screening and brief intervention for physicians. (Adapted from National Institute on Alcohol Abuse and Alcoholism. The physician's guide to helping patients with alcohol problems. Washington (DC): National Academy Press; 1995.)

CASE STUDY

Initial Presentation

A 30-year-old woman presents to her new primary care physician following enrollment in a new health insurance plan. She is requesting a routine annual preventive health examination and a refill of a prescription for birth control pills.

History

The patient has no current medical complaints and her past medical history is unremarkable except for minor, self-limiting health problems. Her mother, father, and brother are in good health and there are no significant familial diseases. The patient is married, but her husband of 6 years has been stationed overseas for military duty for the past 6 months. They have no children. Since finishing college, the patient

has worked as an assistant branch manager of a major bank. She follows a diet that includes adequate amounts of protein and plenty of fresh fruit and vegetables, but she does not get regular exercise. The patient smokes approximately six packs of cigarettes per week. When asked about current alcohol use, she admits to daily drinking but is nonspecific about the quantity and frequency of her drinking.

Question

- How should screening for alcohol problems be incorporated into history taking?

Approaches to Screening

Primary care physicians should screen all patients for alcohol problems. Screening should be incorporated into the history along with other routine questions and should involve a precise history of patient alcohol use and/or the use of standardized screening questionnaires [1]. The physician should not accept vague answers if the patient becomes evasive.

Although every physician has a unique style and the most appropriate question to ask first varies with the clinical situation, there is evidence to suggest that asking direct questions can effectively and efficiently elicit information about drinking habits [11]. Questions to ask patients about alcohol use are listed in Table 1. All patients should be initially questioned about whether they drink alcohol. Current drinkers also should be asked about the quantity and frequency of their alcohol consumption. One drink is defined as 12 oz of beer, 5 oz of wine, or 1.5 oz (one jigger) of distilled spirits.

Several short and easily administered questionnaires are available that allow for the rapid screening of problematic alcohol consumption. The most widely promoted screening test for use in clinical practice is the CAGE questionnaire (Table 1) [12], which uses four questions to assess patterns and consequences of alcohol use. The sensitivity of the CAGE questions for identifying lifetime alcohol problems ranges from 60% to 95% using a cutoff set at two positive responses. The Alcohol Use Disorders Identification Test (AUDIT) [13] is a 10-question multicultural screening tool for the early identification of problem drinkers. The Short Michigan Alcohol Screening Test (SMAST) also assesses for the lifetime consequences of alcohol use [14]. Although used in research settings, AUDIT and SMAST can be cumbersome to use in primary care [15].

Further Questions About Alcohol Use

Because the patient is evasive when asked about the quantity and frequency of her drinking, the physician asks the CAGE questions. The patient acknowledges that she has tried to cut down on her drinking recently and

has felt guilty about her drinking, tearfully admitting to an extramarital liaison that occurred during a blackout after consuming "at least six" drinks at a bar several weeks ago.

Question

- Based on this patient's history and answers to screening questions, how should she be classified for further assessment?

Classification of Alcohol Use

After obtaining a routine medical history and asking initial screening questions for problem drinking, it is helpful to classify a patient's pattern of alcohol use on the basis of health risks. The NIAAA classification system is summarized in Table 2. Designed to be an initial assessment procedure and not a diagnostic tool, it encompasses a broader range of drinking behaviors than the dichotomous scales for alcohol abuse and dependence outlined in the *Diagnostic and Statistical Manual of Mental Disorders (DSM-IV)* [16].

The NIAAA defines *low-risk drinking* as no more than 14 drinks per week or 4 drinks per occasion for men and no more than 7 drinks per week or 3 drinks per occasion for women. Low-risk drinkers answer negatively to all four CAGE questions and do not have a personal or family history of alcohol-related problems. *At-risk drinkers* exceed the recommended limits of low-risk drinking. Patients who drink in risky situations (eg, before driving) or who have a personal or family history of alcohol-related problems but are not currently experiencing any biopsychosocial problems related to drinking also are classified as at-risk.

Problem drinkers drink in excess of the recommended low-risk consumption levels, may give one or two positive responses to the CAGE questions, and have evidence of alcohol-related medical, behavioral, or social problems. *Dependent drinkers* typically give three or more positive responses to the CAGE questions and exhibit a maladaptive pattern of alcohol use evidenced by habitual compulsive drinking (drinking for the mood-altering effects of alcohol), impaired control over drinking (unable to stop drinking once started), relief drinking (using alcohol to treat anxiety, depression, or insomnia), chemical dependency (drinking to avoid withdrawal symptoms [eg, tremors, nausea, sweats, mood disturbance]), and increased tolerance (using more alcohol to achieve a certain desired effect).

Classification of This Patient

Based on her initial responses, this patient would be classified as a problem drinker. Her drinking exceeds low-risk lev-

Table 1. Questions to Ask Patients About Alcohol Use

Ask all patients:

- Do you drink alcohol, including beer, wine, or distilled spirits?
- When was your last drink?
- Have you ever had a drinking problem?

Ask current drinkers about the quantity* and frequency of alcohol consumption:

- On the average, how many days per week do you drink alcohol?
- On a typical day when you drink, how many drinks do you have?
- What is the maximum number of drinks that you have had on any given occasion during the last month?

Ask current drinkers the CAGE questions about the patterns and consequences of their alcohol consumption:

- C Have you ever felt that you need to Cut down on your drinking?
- A Have people Annoyed you by criticizing your drinking?
- G Have you ever felt bad or Guilty about your drinking?
- E Have you ever had a drink first thing in the morning to steady your nerves or get rid of a hangover (ie, an Eye-opener)?

Adapted from National Institute on Alcohol Abuse and Alcoholism. The physician's guide to helping patients with alcohol problems. Washington (DC): National Academy Press; 1995, and Ewing JA. Detecting alcoholism: the CAGE questionnaire. *JAMA* 1984;252:1905-7.

*One drink is defined as 12 oz of beer, 5 oz of wine, or 1.5 oz (one jigger) of distilled spirits.

els, she gave two positive responses to the CAGE questions, and she is experiencing psychological distress resulting from her drinking as evidenced by tearfulness over sexual indiscretions.

Question

- What health-related problems are associated with alcohol abuse and how should patients be assessed for these problems?

Biomedical Problems

Alcohol can cause damage to virtually every tissue and organ system of the body [17], but its toxic effects depend on the quantity and frequency of alcohol consumption and a patient's gender, age, and nutritional status. Excess alcohol consumption is a risk factor for hypertension, heart failure, and

BRIEF INTERVENTION FOR ALCOHOL PROBLEMS

Table 2. Classification of Patterns of Alcohol Use

Classification	Indicators
Low-risk drinking	No drinking in risky situations (eg, before driving or operating machinery) AND alcohol consumption that does not exceed 14 drinks per week or 4 per occasion (men) or 7 drinks per week or 3 per occasion (women)
At-risk drinking	Drinking in risky situations OR drinking in excess of recommended low-risk levels OR drinking when there is a personal or family history of alcohol-related problems
Problem drinking or alcohol abuse	Drinking in risky situations or drinking in excess of recommended low-risk levels or evidence of alcohol-related medical or behavioral problems OR one or two positive responses to the CAGE questions that have occurred within the past year
Alcohol dependence	Three or four positive responses to the CAGE questions OR evidence of one or more of the following: Preoccupation with drinking Compulsion to drink Impaired ability to control the amount of drinking Increased tolerance to the effects of alcohol Symptoms of withdrawal after cessation of drinking

Adapted from National Institute on Alcohol Abuse and Alcoholism. The physician's guide to helping patients with alcohol problems. Washington (DC): National Academy Press; 1995.

stroke. It is toxic to nervous tissues and leads to dementia and peripheral neuropathy. The liver is the organ most commonly affected because it receives portal blood containing high concentrations of alcohol directly from the intestines and, as the primary site of alcohol metabolism, it forms abundant toxic alcohol metabolites. Excessive alcohol consumption causes acute liver injury (alcoholic hepatitis) and a chronic progressive form of liver injury (fibrosis or cirrhosis). Alcohol abuse is the leading cause of liver-related mortality in the United States and the 11th leading cause of death, accounting for more than 25,000 deaths in 1992 [18]. Because less than half of heavy drinkers develop alcoholic hepatitis or liver fibrosis, other environmental factors and genetic susceptibility are thought to interact with alcohol to produce liver disease.

One of the most serious effects of excessive alcohol consumption by pregnant women is fetal alcohol syndrome (FAS). The syndrome is characterized by prenatal and postnatal growth retardation, central nervous system disorders (structural abnormalities, developmental delay, intellectual impairment), and facial anomalies (short palpebral fissures, thin upper lip, flattened midface, indistinct philtrum). Abel [19] estimated that FAS occurs at a rate of 9.7 per 1000 live births in the general population and in 4.3% of children born to women who drink heavily, or about 2000 cases annually in the United States.

Psychosocial Problems

In addition to the major medical diseases associated with problem drinking, a broad spectrum of psychiatric and behavioral problems are seen in this population (Table 3). Nearly all patients who abuse alcohol will have symptoms of anxiety and a depressed mood. This may be due to the direct sedative and depressive effects of alcohol or due to the

adverse social consequences of alcohol abuse. Those who have a documented concurrent psychiatric disorder that existed before the onset of alcohol abuse or that persists after a period of abstinence (usually 1 year) are said to have a dual diagnosis. The prevalence of dual diagnosis, which occurs in up to 10% of patients who are alcohol dependent, may be greater among those who also abuse other drugs [20]. Acute alcohol intoxication often is associated with violent behavior, and chronic alcohol abuse can result in memory impairment and a decreased intellectual function.

Clinical Assessment

A history of problems commonly associated with at-risk or problem drinking (Table 3) should prompt careful assessment of drinking behavior; likewise, at-risk and problem drinkers should be assessed for these problems.

Because alcohol-related problems often are dose-dependent, further information about the quantity and frequency of alcohol consumption may be informative, especially if family members are used to confirm the patient's history. A family history of alcohol abuse is an important piece of information because there appears to be a genetic predisposition to alcoholism and because some individuals learn to drink abusively from family role models.

Laboratory Assessment

Laboratory testing should be guided by the clinical presentation. As the liver is the organ most likely to be affected early in the course of alcohol abuse, an elevated serum gamma-glutamyltransferase (GGT) level may be an early diagnostic marker, even acutely. Since alcohol inhibits red cell maturation, an elevated mean corpuscular volume

OUTCOMES AND THE PATIENT

Table 3. Problems Associated with Excessive Alcohol Use or At-Risk Drinking

Biomedical Problems			
Symptoms	Signs	Illnesses	Laboratory abnormalities
Headache*	Hypertension*	Gastric reflux	Elevated liver enzymes
Nausea*	Arrhythmias	Gastrointestinal bleeding*	(especially gamma-glutamyltransferase)
Dyspepsia*	Spider nevi	Pancreatitis	Increased mean corpuscular volume (macrocytosis)
Palpitations	Seizures	Fatty liver*	Hyperlipidemia*
Abdominal pain*	Recurrent trauma*	Alcoholic hepatitis	Hyperglycemia (glucose intolerance)
Recurrent diarrhea	Malnutrition	Hepatic fibrosis/cirrhosis	
Nervousness*	Testicular atrophy	Cardiomyopathy	
Anorexia*	Hand tremor	Peripheral neuropathy	
Recurrent minor illness*	Parotid swelling	Preterm labor	
Impotence	Gynecomastia*	Fetal alcohol syndrome	
Reduced libido*			
Psychological/Psychiatric Problems			
Sleep disturbances*	Eating disorders	Wernicke's encephalitis	Excessive medical care*
Depression*	Sexual dysfunction	Korsakoff's psychosis	Marital problems
Suicide gestures	Memory problems	Personality problems	Child neglect/abuse
Adjustment disorders*	Blackouts	Dementia	Elder neglect/abuse
Social Problems			
Poor school or work performance*	Social isolation	Public intoxication	Domestic violence
Under/unemployment	Loss of friends	Driving while intoxicated	Assault/battery
Financial problems	Criminal activity		

*Commonly seen in primary care.

(MCV) can be used as a marker for chronic excessive alcohol consumption.

Physical Examination and Additional Patient History

Physical examination reveals a pleasant, well-dressed, well-groomed woman with a height of 5'8", weight of 145 lb, temperature of 98°F, and blood pressure of 130/80 mm Hg. The examination is unremarkable.

After the physical examination, the physician assesses the patient for additional alcohol-related problems with a more detailed history. On further questioning, the patient admits to having blackouts (no memory for events while drinking), a depressed mood, and sleep disturbances. She has no abdominal complaints, admits to no sexual dysfunction, and denies any recent trauma. However, she does admit to driving while intoxicated and missing work on two or three occasions because of a hangover. She begins to cry again, and the physician touches her arm lightly to acknowledge her suffering, which seems to comfort the patient.

Question

- What factors are important to consider in deciding on a treatment approach?

Assessing Readiness for Treatment

Every patient is a candidate for a preventive health message, but the appropriate intervention for a particular patient depends on the patient's risk classification and willingness to change. Prochaska's six-stage model of the change process in addictive behavior [21] may be used to assess a patient's level of readiness and to tailor advice appropriately.

The model assumes that patients change their behavior gradually. At first, patients may not realize that a change in behavior is necessary (Precontemplation). In the next stage, they recognize their problem and consider making a change (Contemplation). The next stage is deciding to make a change (Determination), although this decision may be accompanied by feelings of ambivalence. Finally, patients do

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Table 4. Phases of Behavioral Change with Associated Patient Perspective and Physician Task

Phase of Change	Patient Perspective	Physician Task
Precontemplation	Lacks awareness that behavioral change is necessary	To educate the patient about drinking, how alcohol is affecting the patient's health and the need for a behavioral change (eg, provides verbal information, pamphlets, or other materials to the patient)
Contemplation	Considers or is ambivalent about behavioral change	To encourage the patient to make a decision to change drinking pattern (eg, arranges for patient to meet a recovering alcoholic or therapist or arranges a formal intervention)
Determination	Decides to make a behavioral change	To discuss the available options and action plan with the patient (eg, considers a low-risk drinking goal, abstinence, professional treatment, or attendance at self-help groups)
Action	Takes action to make a behavioral change	To encourage the patient to follow through with the action plan despite anticipated barriers (eg, arranges for a reevaluation to monitor progress)
Maintenance	Maintains the new behavior	To reinforce the new behavior and to identify the patient who is at risk for relapse into previous behavior
Relapse	Returns to the previous behavior	To educate the patient that relapses are common and to encourage the patient to take action to change behavior (ie, return to the "precontemplation" phase)

Adapted with permission from Prochaska JO, DiClemente CC, Norcross JC. In search of how people change: applications to addictive behaviors. *Am Psychol* 1992;47:1102-14.

Table 5. Advice for Patients According to Pattern of Drinking

Pattern of Drinking	Examples of Appropriate Advice
Abstinence	Reinforce the patient's choice of abstinence as the best way to avoid alcohol-related health problems.
Low-risk drinking	Reinforce low-risk alcohol consumption recommendations as a good way to avoid alcohol-related health problems. Advise patients not to drink in risky situations (eg, before driving or operating machinery).
At-risk drinking	Advise a reduction in alcohol consumption to low-risk levels and avoidance of drinking in risky situations.
Problem drinking	Advise a reduction in alcohol consumption to low-risk levels or a trial of abstinence. Consider a referral to an alcohol abuse specialist for further assessment and treatment.
Alcohol dependence	Advise a trial of abstinence. Consider a referral to an alcohol abuse specialist for further assessment, detoxification, or treatment. If the patient is not ready to commit to a behavioral change, consider a formal intervention coordinated by a treatment specialist.

Adapted from National Institute on Alcohol Abuse and Alcoholism. The physician's guide to helping patients with alcohol problems. Washington (DC): National Academy Press; 1995.

something to change their behavior (Action), and then try to continue the new behavior (Maintenance). They may return to the old behavior (Relapse) despite their best efforts. Examples of appropriate advice according to phase of behavioral change are outlined in Table 4.

Risk Classification

A patient's level of health risk due to drinking also determines what type of advice is appropriate for a given patient (Table 5). Patients who abstain from alcohol are not free of risk; abstainers, particularly those who have had problems with alcohol in the past, should be encouraged to continue

abstinence as the best way to prevent future problems. Patients who have relatives who are alcohol abusers should be informed about the genetic nature of alcoholism. Low-risk drinkers should be advised not to exceed low-risk levels and not to drink in risky situations. At-risk drinkers who exceed recommended low-risk levels should be advised to cut down on their drinking, and those who have a strong family history of alcoholism can be advised to consider abstinence as the best way to prevent future alcohol-related problems. Problem drinkers should be advised to cut down or quit. Patient education materials are helpful in reinforcing the information that is given verbally by the physician.

Periods of abstinence are common early in the course of alcohol abuse among patients who still have the ability to control the onset of drinking even though they lack the ability to control the amount of drinking once they start. Some clinicians recommend "controlled drinking" as a test for early alcohol dependence. In controlled drinking, the patient is asked to drink a specific amount (one or two drinks each and every day) but no more and no less. Alcohol-dependent patients often will find this difficult and will exceed the upper limit.

Question

- What treatment approaches are effective for at-risk and problem drinkers?
-

Brief Intervention

A number of studies have demonstrated that at-risk and problem drinkers can benefit from a brief intervention, a short counseling session focused on helping a person change specific behavior [22-24]. Randomized controlled trials in primary care or community-based settings with at least 6 months of follow-up have demonstrated improved outcomes among problem drinkers who receive brief interventions compared to controls [25-28]. Specifically, these studies found that the groups receiving brief interventions reduced their alcohol consumption and had positive changes in health behaviors, reduced sick days, or both. Although the type of intervention varied across trials, it usually included brief counseling sessions by physicians plus the provision of informative handouts on decreasing alcohol use for the patient to review after the visit.

Brief intervention methods vary but typically consist of three steps:


1. Giving feedback (eg, expressing specific concerns about the patient's health)
2. Providing patient-specific advice or recommendations
3. Negotiating a specific plan of action

Most authorities suggest using an empathic approach and a nonconfrontational style, conveying confidence in the patient's ability to change behavior and emphasizing the positive benefits of the change [29]. A fundamental principle to remember is that positive reinforcement is more likely than disapprobation to produce a lasting behavioral change. Therefore, the negative consequences of continued behavior need not be given undue emphasis.

The statement of concern about the patient's drinking pattern and related health risks should be made in clear, concise, and unambiguous terms. For example, the physician

might say, "Your alcohol use is damaging your liver. Advice, as mentioned earlier, should be based on the patient's risk category and readiness to change. Examples of advice include recommending that the patient abstain from alcohol or that the patient "cut down" on his or her drinking. If the patient will not agree to the recommended plan, a compromise should be sought. For example, if the physician recommends that the patient stop drinking and the patient refuses, the physician might propose a 2-week trial of abstinence and a follow-up visit.

Brief Intervention in This Patient

 The doctor says, "I am concerned about your drinking. Your behavior while you are drinking places your health and safety at risk. I would like you to stop using alcohol for awhile or at least cut down." The patient is unwilling to try a period of abstinence but agrees to cut back to recommended low-risk drinking levels. She also promises not to drink before driving. A blood sample is obtained for complete blood count and determination of liver enzyme levels. A follow-up appointment is scheduled for 2 months later.

Laboratory test results are notable for a normal MCV and a normal GGT.

Question

- How should patients with alcohol problems be monitored?
-

Monitoring Patients with Alcohol Problems


The same clinical process of assessment, follow-up, and reassessment used to monitor any patient with a chronic medical condition can be used to monitor patients with alcohol-related problems. Patients may respond in different ways to physician advice, and progress often is made slowly through trial and error. Even the most skilled clinicians find that at least half of their patients turn a deaf ear at first. Behavioral change is difficult for any patient and tends to be an incremental process. Progress, not perfection, is the goal.

Patients who are returning for reevaluation can be asked about the quantity and frequency of alcohol consumption, and any progress toward risk reduction made to date can be reinforced. Patients who abstain from alcohol or reduce drinking to below at-risk levels can be asked about progress in reducing the biomedical and psychosocial problems caused by alcohol abuse. Simple questions can be used to monitor this progress (eg, "How is your health?" "How are things going at home? At work?"). As progress is made, some patients come to face past behaviors and may

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experience shame, guilt, or depression. Although this is common and often resolves with time, selected patients may benefit from psychotherapy or treatment with antidepressant medications.

One Year Later

 The patient fails to keep her follow-up appointment but returns 1 year later for her annual gynecologic examination and for renewal of her birth control pills. She volunteers no specific health problems and her physical examination is unremarkable. Without prompting, the patient reports that she no longer drives after drinking but still drinks above low-risk levels and has become intoxicated on several occasions over the past year. She continues to experience blackouts and misses work occasionally after an evening of drinking.

Question

- What management approaches are useful in patients who do not adhere to the treatment plan?

Management of Noncompliance

The patient who does not adhere to the negotiated plan of action often will feel like a failure. The clinician can help the patient by continuing to use an emphatic, nonjudgmental style and by continuing to convey confidence that the patient can change. Additional options for behavioral change may be offered, but it should be conveyed that such a change is ultimately the patient's responsibility.

Treatment options include referral to self-help groups (eg, Alcoholics Anonymous) or referral to formal alcohol treatment programs (see article on page 34). Other options include a trial of abstinence, which may precipitate the signs and symptoms of withdrawal and provide evidence for the diagnosis of alcohol dependence. The primary care physician may wish to consider a referral to a chemical dependency consultant, social worker, psychologist, addictionologist, psychiatrist, or other professional with specific training and expertise in the field. The consultant can perform a more detailed assessment of the patient's problems and evaluate for substance abuse treatment. If the patient is severely affected and willing to accept treatment, sometimes the primary care physician can arrange for immediate treatment placement over the telephone while the patient waits in the examining room.

Alcoholics Anonymous

Physicians can encourage patients to participate in self-help groups such as Alcoholics Anonymous (AA). AA is a fellowship of men and women who meet at regular intervals to


share their "experience, strength, and hope" to assist each other in maintaining sobriety. The only requirement for membership is the desire to stop drinking. The precepts of AA are spiritual in nature, but the approach used does not contradict most religious beliefs and is compatible with non-religious philosophies.

AA meetings may be either open or closed. The general public may attend open meetings, but only those who consider themselves "alcoholics" may attend closed meetings. Those attending meetings agree to maintain the anonymity of AA members and not disclose the content of the meetings. Meetings generally last 1 hour and may be discussion-oriented or speaker-oriented. In discussion meetings, typically five to 30 people sit in a circle and address topics raised for discussion by individuals at the meeting. There often is a leader who serves only to maintain order during the discussion. In speaker-oriented meetings, individuals tell the stories of how their lives were while they were drinking, how it was that they became sober, and how their lives have been since they became sober. In general, speakers' meetings tend to draw a large audience, sometimes a few hundred. Meetings may be targeted toward specific groups, such as women, gays, professionals, and nonsmokers.

Members of AA follow the "twelve steps," which they believe are essential for the process of recovery (Table 6). Some meetings are devoted to studying this twelve-step process. New members are expected to obtain a "sponsor," a member who generally has had at least 1 year of sobriety. The sponsor has regular telephone contact with the new member and helps the new member work through the twelve steps.

An abundance of AA conference-approved literature, available through the local AA chapter offices, has been developed. The book *Alcoholics Anonymous* [30], also known as the "Big Book," describes the history of the organization and contains the personal stories of some of AA's original members. AA members are encouraged to use this book as a guide to recovery.

Treatment Plan and Follow-up

 The physician tells the patient that he is concerned about the effects of her drinking and would like her to speak with somebody who can help her. However, the patient says that she wants to "deal with this alone." She agrees not to drink at all for 2 weeks and to call the office to speak with the doctor after the 2-week period. This is documented in her chart. She does not telephone as promised.

The patient does not return until the following year, reporting for her annual gynecologic examination and prescription renewal. When asked if she was able to abstain from alcohol, she reports that 3 months previously she stopped drinking following dental surgery. She experienced nausea, tremor, and

OUTCOMES AND THE PATIENT

a compulsion to drink, which led her to conclude that she was an "alcoholic." She cries as she recalls this event. She states that she has often felt depressed and has had missed workdays and had a couple of blackouts over the past year. She also says that her husband returned from overseas about 6 months ago and that things were "not going well." Placing her hand on top of the doctor's she tearfully asks, "What do I need to do?"

The physician encourages the patient to attend the meeting of a self-help group, but also offers to make a referral to an addictionologist or treatment center. After discussing her options with the physician, the patient agrees to attend an AA meeting. The physician calls AA while the patient is in the office and has her speak with an AA member, who identifies meetings held at convenient times and locations for the patient. She agrees to attend a meeting that night and to call the physician's office in 1 week to provide information on her progress.

One week later, the patient calls the physician's office and reports that she has not had a drink since the office visit and has obtained a sponsor in AA.

Question

- How may physicians assess the quality of a patient's recovery from alcohol problems?

Recovery Assessment

Alcohol abuse is similar to other chronic diseases for which there is no cure. The process of recovering from problem drinking typically involves episodes of remission and relapse [31]. Some patients experience long-term remission with very few relapses, while others experience frequent and sometimes prolonged relapses. Recovery can be assessed by asking patients about their drinking habits, overall general health, psychological and social functioning, and what activities are being used to maintain recovery.


Patients who are in good recovery take care of their overall health, attend self-help meetings regularly, have a normal mood, maintain a positive attitude, are socially well-adjusted, and have good interpersonal relationships with their family and friends. They do not engage in compulsive or risky sexual behavior. They are able to function well at school or on the job and do not have unexplained "sick" days. Their finances are sound and they do not gamble compulsively. They do not experience recurrent legal problems and they obey the law. Some patients continue to experience psychological difficulty and may require ongoing psychotherapy to help resolve issues that occurred during their years of drinking. However, those in good recovery usually remain optimistic that these issues can be resolved.

Table 6. The Twelve Steps of Alcoholics Anonymous


1. We admitted we were powerless over alcohol—that our lives had become unmanageable.
2. Came to believe that a Power greater than ourselves could restore us to sanity.
3. Made a decision to turn our will and our lives over to the care of God as we understood Him.
4. Made a searching and fearless moral inventory of ourselves.
5. Admitted to God, to ourselves, and to another human being the exact nature of our wrongs.
6. Were entirely ready to have God remove all these defects of character.
7. Humbly asked Him to remove our shortcomings.
8. Made a list of all persons we had harmed, and became willing to make amends to them all.
9. Made direct amends to such people wherever possible, except when to do so would injure them or others.
10. Continued to take personal inventory and when we were wrong promptly admitted it.
11. Sought through prayer and meditation to improve our conscious contact with God as we understood Him, praying only for knowledge of His will for us and the power to carry that out.
12. Having had a spiritual awakening as the result of these steps, we tried to carry this message to alcoholics and to practice these principles in all our affairs.

A relapse may be imminent if a patient is experiencing ongoing problems with any of these indicators. Frequently, a relapse is preceded by a change in attitude, a depressed mood, lack of adherence to attending self-help meetings or psychotherapy sessions, or problems with interpersonal relationships.

One Year Later

 One year later, the patient returns for her annual gynecologic examination and refill of her birth control pills. She reports that things are going well in her life. She is attending AA meetings three to four times a week, has a sponsor in AA, is reading AA literature regularly, and is following the twelve steps. She notes that she has been sober for 1 year. She no longer misses work and is happy in her job and her marriage.

Conclusion

 This case illustrates how primary care physicians can encourage patients with alcohol problems to make incremental changes through brief and inexpensive office interventions. By providing early intervention, significant

biomedical or psychosocial problems can be prevented. Without an intervention, the problems of the case patient would likely have progressed, and major health problems, divorce, or job loss may have followed. As the course of the disease progresses, patients may require expensive inpatient or outpatient treatment and long-term follow-up. When the disease is allowed to progress without treatment, patients may experience irreversible biomedical disease or death. By intervening early and over time, primary care physicians can play an important part in decreasing the burden of disease caused by alcohol abuse.

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EVALUATION FORM: Brief Intervention for Alcohol Problems in Primary Care

DIRECTIONS: Each of the questions below is followed by four answers. Select the ONE lettered answer that is BEST in each case and circle the corresponding letter on the answer sheet.

1. Which of the following would be the most appropriate initial question to ask when asking a patient about alcohol use?
 - (A) "How do you feel about your drinking?"
 - (B) "Do you drink too much?"
 - (C) "Do you drink alcohol, including beer, wine, or distilled spirits?"
 - (D) "Are there times when you are unable to stop drinking once you have started?"
2. Which of the following problems is usually NOT associated with alcohol dependence?
 - (A) A compulsion to drink or a preoccupation with drinking
 - (B) Impaired control or the inability to stop drinking once started
 - (C) Relief drinking or drinking to avoid withdrawal symptoms
 - (D) Decreased tolerance or taking less alcohol than before to become intoxicated
3. Which of the following patients would NOT be at risk for alcohol-related problems?
 - (A) A woman who drinks 12 cans of beer a week
 - (B) The abstinent son of an alcoholic man
 - (C) A man who occasionally drinks six cans of beer while watching television during a weekend afternoon but who does not drink during weekdays
 - (D) A woman who never drinks more than three drinks on a given day and does not have a personal or family history of alcohol-related problems
4. A patient admits to drinking about 10 times per year, usually at parties. Sometimes he becomes intoxicated, and he has experienced blackouts on at least two occasions. The last blackout occurred 3 years previously. He states that he does not have a drinking problem because he can control his drinking and mentions that he has "cut way back" from what he used to drink before he was arrested for driving while intoxicated. Which of the following categories best describes this patient?
 - (A) Low-risk drinker
 - (B) At-risk drinker
 - (C) Problem drinker
 - (D) Dependent drinker
5. A patient who has decided to change addictive behavior but who has not yet taken action on this decision is said to be in which stage of behavioral change?
 - (A) Precontemplative
 - (B) Contemplative
 - (C) Determination
 - (D) Action
6. Which of the following options would be the most appropriate action plan for a dependent drinker who is willing to change her drinking behavior?
 - (A) A referral to an individual who has experience with the management of substance abuse for an evaluation and treatment recommendation
 - (B) A recommendation to cut down the consumption of alcohol to low-risk levels
 - (C) A trial of abstinence and a follow-up appointment for reevaluation
 - (D) Admission to the hospital for detoxification