



Special focus:

Alcohol abuse and related disorders

General internists are increasingly on the front lines in diagnosing alcohol abuse. Some patients may not qualify as alcohol dependent yet are suffering harmful effects from drinking. It is critical that the general internist have simple screening strategies in place that will identify potential problems within the typical 15- to 20-minute office visit.

A new tool for screening and diagnosis is designed to help the time-pressed generalist. The National Institute on Alcohol Abuse and Alcoholism (NIAAA) has identified a single question screen designed to identify harmful and hazardous drinkers: How many times in the past year have you had greater than five drinks (for men)/ four drinks (for women) in a day? Just one heavy drinking day defines a positive response.

“The feeling was that even the simplest screening strategy such as the CAGE questions were not being used on a regular basis by physicians,” said David Fiellin, MD, associate professor of medicine, Yale University School of Medicine and editorial consultant for the PIER module on alcohol abuse. The hope is that having a single question will encourage more physicians to ask patients about their drinking habits, he said.

“The effectiveness of new medications and counseling are now making it more within the realm of nonspecialist physicians to provide medication ... along with brief counseling for patients who have more severe drinking problems,” Dr. Fiellin said.

This edition of *ACP Observer Special Focus* is designed to help optimize your ability to diagnose, treat and manage patients with alcohol abuse.

SCREENING

Alcohol problems can be defined by quantity and frequency of use or by their impact on a patient’s overall health.

- Two or more drinks a day for men and one or more for women categorize the patient as a moderate drinker, according to the NIAAA. For men, more than 14 drinks a week or more than five on any one occasion, and for women more than seven a week or more than four on any one occasion, are defined as at-risk drinking.
- The World Health Organization (WHO) defines hazardous drinking as that which places someone at risk for adverse consequences, and harmful drinking as that which causes physical or psychological harm. The DSM-IV from the American Psychiatric Association (APA) goes further in formally defining alcohol abuse and dependence in terms of alcohol-related events.

Aside from the injuries, legal problems, and adverse effects on personal and professional relationships associated with excessive drinking, the health effects of long-term use are well known. Given that just two drinks per day increase the risk for hypertension in men and women, and increased alcohol intake is associated with greater risk for atrial fibrillation and fatal arrhythmias, diagnosing at-risk drinking early is critical. At-risk drinking can also increase the risk for stroke and breast cancer. Alcohol abuse leads to increased risk for cardiomyopathy and gastrointestinal problems that in turn may lead to cirrhosis and end-stage liver disease. A useful Web site that reviews evidence of the relationship of alcohol to medical conditions is available at www.alcoholandhealth.org.

Early detection is key not only for patients with alcohol problems, but also for those low-risk patients who may not know safe drinking levels and whose drinking habits may progress to alcohol abuse and its associated physical consequences. As a result, every patient who comes into an internist’s office should be screened on an annual basis for alcohol use. Just asking, “Do you sometimes drink alcoholic beverages?” can help determine who needs further screening.

If the answer is positive, screening tools, such as the AUDIT questionnaire, should be used to gather more information. AUDIT, which takes about five minutes, and AUDIT-C, which takes less time, help identify those patients with at-risk or hazardous drinking by tallying scores related to answers ranging from daily or almost daily to never.

Patients with an AUDIT score greater than 8 have a high likelihood of at-risk and hazardous drinking; the corresponding scores on the AUDIT-C are 4 for men and 3 for women. At a cutoff score of 8, the AUDIT has a sensitivity of 51% to 97% and a specificity of 78% to 96%, while physicians using only clinical judgment identify only 36% to 77% of patients with current alcohol problems and 21% of patients with inactive alcohol problems. Full questionnaires and scoring algorithms are available at www.niaaa.nih.gov/NR/rdonlyres/287137A9-62BF-4EDE-A752-4A351C57A0B8/o/Audit.pdf for the AUDIT and at <http://pier.acponline.org/physicians/diseases/d282/tables/d282-t1.html> for the AUDIT-C.



Previous NIAAA guidelines recommended using frequency and quantity of drinking and CAGE questions to screen. (Positive screening result = 1 or more positive responses)

- “Have you ever felt that you should cut down on your drinking?”
- “Have people annoyed you by criticizing your drinking?”
- “Have you ever felt bad or guilty about your drinking?”
- “Have you ever had a drink first thing in the morning (an eye-opener) to steady your nerves or get rid of a hangover?”

The most recent (2005) NIAAA Clinician’s Guide (Helping Patients Who Drink Too Much) recommends either the single question screen described above or, if time permits, the AUDIT or the shorter AUDIT-C questionnaire because these screening instruments are more effective in identifying at-risk

drinkers. The guide can be found here: <http://pubs.niaaa.nih.gov/publications/Practitioner/CliniciansGuide2005/guide.pdf>.

Not every tool works for every population. For example, while formal screening instruments usually work better than non-formal techniques or clinician judgment, it helps to use less formal screening methods or the MAST-G (Michigan Alcoholism Screening Test - Geriatric version) to screen for alcohol abuse among the elderly.

College students are particularly at risk: 31% of them abuse alcohol, according to one survey. Those who drink 10 or more times a month or get intoxicated three or more times per month and experience alcohol-related problems are more likely to be alcohol dependent.

DIAGNOSIS

Patients with a positive screening test should be evaluated more fully to distinguish carefully between moderate alcohol consumption, at-risk drinking, alcohol abuse and dependence. This will determine whether the patient will need a brief office-based counseling intervention or more extensive therapy involving therapy with or without drug treatment.

According to the DSM-IV criteria, patients only need to have suffered three alcohol-related “events” in the past year to be considered alcohol dependent. And DSM-IV defines alcohol abuse as experiencing just one such event, such as recurrent use, that leads to failure to fulfill major obligations.

Also consider comorbid psychiatric disorders (which occur more frequently with patients with alcohol disorders), family history of substance use and acute or chronic liver disease. In addition, look for comorbid substance use disorders, which are common in patients with alcohol problems. These patients, who tend to have poorer response to treatment for their alcohol problems, need to be treated for both conditions in conjunction with an addiction psychiatrist or addiction medicine specialist.

Red flags during a physical exam include hypertension, jaundice, cardiomyopathy, atrial fibrillation and dementia. While these elements alone cannot detect alcohol problems, they can be helpful when viewed in conjunction with a good history and use of a formal screening tool.

Use laboratory tests in patients who may have alcohol problems or medical complications due to alcohol. For patients with suspected at-risk drinking, consider obtaining a carbohydrate-deficient transferrin (CDT), a serum protein that is a sensitive marker of liver disease associated with alcohol abuse. For those with alcohol abuse and dependence who are more likely to have physiologic abnormalities, look for an elevated MCV, elevated GGT and elevated AST/ALT ratio.

CONSULTATIONS

Become aware of specialty services from an addiction specialist or addiction psychiatrist—such as through the American Society of Addiction Medicine—or alcohol treatment program. These resources can help when a diagnosis is unclear or when a psychiatric diagnosis such as major depression, anxiety or personality disorder, is suspected. Also, consider a consult if the patient drinks above the NIAAA at-risk criteria. This can affect outcomes because psychiatric and substance use alters the response of various treatment interventions.

Consider consulting with gastroenterologists, hepatologists or neurologists for patients whose alcohol use has led to complications such as alcoholic hepatitis, cirrhosis and end-stage liver disease and neurologic sequelae.

TREATMENT

Non-drug treatment

Brief interventions can help patients with lower levels of alcohol consumption reduce the number of drinks they have per week as well as the incidence of binge and excessive drink-

ing. This could move patients from at-risk levels to below at-risk levels. Those interventions are:

- feedback on clinical assessment and adverse effects of alcohol,
- discussion of the adverse effects of alcohol consumption,
- comparison to national drinking norms,
- specific recommended drinking limits,
- prescription to “cut down on drinking,”
- patient education material from the NIAAA,
- daily self-monitoring log information from the NIAAA, and
- repeated office sessions.

Brief interventions are effective for patients with at-risk drinking, but less so for those with alcohol abuse and dependence. Instead, those patients do better with a combination of psychosocial counseling strategies, such as 12-step facilitation, cognitive behavioral therapy, or motivational enhancement therapy plus drug agents.

Participation in Alcoholics Anonymous is modestly correlated with drinking reduction: one-third of participants are sober for less than one year, one-third for one to five years and one-third for more than five years. All types of non-drug therapies benefit from having families and other social networks involved.

Drug therapy

Consider benzodiazepines as first-line initial therapy for all patients who require medications for the management of alcohol withdrawal syndrome (Clinical Institute Withdrawal Assessment Scale for Alcohol score >12). Agents such as chlordiazepoxide, diazepam or lorazepam can be titrated to symptoms, or chlordiazepoxide or diazepam can be given on a fixed schedule. Either regimen can be used in hospitalized patients with more severe or long-standing alcohol dependence, a history of failed or multiple detoxification attempts, acute medical or surgical illnesses or pregnancy. Those with a history of seizures should be given long-acting benzodiazepines on a fixed schedule even if they are asymptomatic.

These benzodiazepines are similarly efficacious in treating withdrawal. Longer-acting agents may be more effective in preventing seizures but can pose a risk of excess sedation in the elderly and patients with severe liver disease. Longer-acting agents (chlordiazepoxide, oxazepam, or halazepam) generally have a slower onset of action leading to decreased abuse potential compared to agents with rapid onset of action (e.g., diazepam, alprazolam, and lorazepam). Continuous intravenous infusions of benzodiazepines can result in the use of large amounts of medication and increased medication costs. There is no evidence that continuous infusion therapy with short-acting agents provides better outcomes than oral or intravenous bolus therapy with longer-acting agents.

Adjunctive medications such as β -blockers, clonidine, carbamazepine, and neuroleptics are not recommended as monotherapy. β -blockers and clonidine could be beneficial for patients in whom control of tachycardia and hypertension is needed. Haloperidol can be used to treat agitation and hallucinosis in patients exhibiting these signs. Note that β -blockers have been associated with a greater incidence of delirium and neuroleptics with a greater incidence of seizures during withdrawal. Detoxification with alcohol is not supported by the scientific literature.

Naltrexone is a mainstay in treating patients for alcohol abuse and dependence in conjunction with psychosocial counseling and should be considered in all patients who meet the criteria for alcohol abuse and dependence and have no contraindications, such as receiving or withdrawing from an opioid or suffering from liver failure or hepatitis. The COMBINE study showed that adding either naltrexone or special-

Standard drink equivalents



Beer or cooler

12 oz.,
~5% alcohol

12 oz. = 1
16 oz. = 1.3
22 oz. = 2
40 oz. = 3.3



Malt liquor

8-9 oz.,
~7% alcohol

12 oz. = 1.5
16 oz. = 2
22 oz. = 2.5
40 oz. = 4.5



Table wine

5 oz.,
~12% alcohol

a 750 mL (25 oz.)
bottle = 5



80-proof spirits (hard liquor),

1.5 oz.,
~40% alcohol

a mixed drink = 1 or more*
a pint (16 oz.) = 11
a fifth (25 oz.) = 17
1.75 L (59 oz.) = 39

* Depending on factors such as the type of spirits and the recipe, one mixed drink can contain from one to three or more standard drinks.

Source: NIAAA

ized alcohol counseling to medical management nearly doubled the chance of doing well.

Disulfiram is also an option, but because of problems with compliance may be best for highly motivated patients and for situations in which the patients can be monitored. Consequently, naltrexone may be better for alcohol-dependent patients who are not abstinent or not likely to be so.

Hospitalization

Although there is little empiric data to help decide whether to treat a patient as an outpatient or inpatient for alcohol withdrawal syndrome, experience has shown that some patients can be treated on an outpatient basis with medications and achieve similar results as those treated as inpatients. This group includes patients who:

- have mild to moderate symptoms,
- have no past seizures or delirium tremens,
- have reliable friends or family to give medication,
- have no acute or chronic medical illness that would otherwise require hospitalization,
- are not pregnant, and
- have easy access to their physicians.

However, others need to be hospitalized because of the severity of the alcohol withdrawal syndrome, which can lead to significant morbidity and mortality if untreated, and because of the patient's risk factors. Use the Clinical Institute Withdrawal Assessment Scale for Alcohol (online at www.aafp.org/afp/20050201/495.pdf) if the patient appears to have alcohol withdrawal syndrome. Through observation and questions, this scale looks for nausea/vomiting, tremors, paroxysmal sweats, anxiety, agitation, tactile, auditory and visual disturbances, headache and disorientation.

Hospitalize the patient if the score is greater than 15 or, in general, if the patient is elderly since those patients typically have other medical issues that require inpatient treatment. Also, hospitalize those patients whose medical complications related to alcohol use—e.g., alcoholic hepatitis, pancreatitis, seizures or alcoholic liver disease—cannot be managed in an outpatient setting.

PATIENT EDUCATION

Advise patients with at-risk drinking to decrease their consumption levels to below the NIAAA recommended levels; men—two or fewer drinks per day; women and patients over age 65—one or less than one drink per day. Emphasize the potential impact of drinking on the risk for cardiovascular disease, stroke and breast cancer. Advise abstinent or moderate drinkers about the hazards of at-risk drinking.

Because patients with alcohol abuse and dependence rarely demonstrate controlled drinking, advise these patients to become abstinent. Offer treatments, such as psychosocial counseling and pharmacotherapy, as appropriate, to help them reach that goal. Although these patients frequently relapse, one study showed that patients who had maintained abstinence for five years were unlikely to relapse. Moreover, physician intervention that leads to reduced alcohol consumption is associated with fewer days of hospitalization, fewer emergency department visits and decreased health care costs.

FOLLOW-UP

Because alcohol disease is chronic and subject to relapse, at each visit ask patients with alcohol use disorders about

their alcohol consumption and compliance with psychosocial therapy and pharmacotherapy. Ask patients with at-risk drinking who have had brief interventions about their drinking habits monthly for the first two months after the intervention. Because evidence supports the validity of patient self-report of alcohol consumption other than for patients with recent consumption, ask these questions:

- “Are you drinking alcohol?”
- “How often do you drink?”
- “How much do you usually drink?”
- “Do you ever drink more, and if so, how much?”

Perform a physical exam and lab testing to look for signs of acute and chronic liver disease and neurologic sequelae if relapse or disease complication is suspected. Alcohol biomarkers such as GGT and CDT can be especially useful to monitor patients for alcohol use: a 30% reduction in GGT or CDT indicates reduced consumption or abstinence; a 30% increase may indicate relapse. Patient education should be ongoing.

This information comes from the PIER module “Alcohol Abuse” (<http://pier.acponline.org/physicians/diseases/d282/d282.html>).

The information included herein should never be used as a substitute for clinical judgment and does not represent an official position of ACP.

American College of Physicians
pier
Physicians' Information
and Education Resource