Screening and Brief Intervention for Risky Alcohol Use

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Alcohol Use, Abuse, and Addiction

Alcohol use is common among many populations in the United States (U.S.). The 2011 Behavioral Risk Factor Surveillance System (BRFSS) found that among adult Americans surveyed, 57.1% (63.3% of males and 51.3% of females) reported that they had consumed at least one alcoholic beverage in the preceding month. The highest prevalence, 59.9%, was found among whites (blacks: 50.0%, Hispanics: 49.1%, other: 48.4%, and multiracial: 52.6%).[1] Of those adults surveyed, 18.3% (24.2% of males and 12.6% of females) reported binge drinking, which is defined as the consumption of five or more drinks for males and four or more drinks for females on one occasion.[2] For most individuals, this level of consumption causes the blood alcohol concentration (BAC) to rise to at least 0.08%.[3] Alcohol abuse is a diagnostic term for excessive alcohol use. The Diagnostic and Statistical Manual of Mental Disorders Fourth Edition (DSM-IV) states that alcohol use that is harmful to an individual's health or impairs his/her ability to function at home, school, work, or in social settings is defined as abusive. Indications that alcohol use may have reached the level of abuse include an inability to fulfill personal or professional responsibilities, legal repercussions, and drinking in dangerous situations (i.e., while driving) or despite on-going problems that have resulted from drinking.[4]

For some, at-risk drinking can progress into dependency or addiction. Alcohol addiction is a chronic condition resulting from physiologic changes that are often more difficult to treat than alcohol abuse alone. Alcohol addiction is diagnosed when an individual meets three out of seven criteria described in Table 1 in a given year.

Whether diagnostically classified as use, abuse, or addiction, excessive alcohol consumption contributes to significant morbidity and mortality. Alcohol produces chronic diseases of the liver and the digestive system, hypertension, poor pregnancy outcomes (including FASDs and SIDS), mental health disorders, and unintentional injuries (e.g., motor vehicle crashes and firearm misuse).[5] These are just a few of the devastating consequences experienced as the result of excessive alcohol use. Through the inclusion of 54 acute and chronic causes of alcohol-related mortality in the Centers for Disease Control and Prevention's (CDC) Alcohol-Related Disease Impact (ARDI) software, calculations indicate there were over 80,000 alcohol-attributable deaths in the US from 2001 to 2005, with a slight majority due to acute causes.[6] These premature deaths are estimated to have caused almost 2.4 million years of productive life lost (YPLL). With a price tag of $223.5 billion in 2006 alone, screening for alcohol use in the U.S. should be of paramount concern for health care professionals.[7,8]

Screening for Alcohol Use in Primary Care

Most contact with health care professionals occurs in primary care, which makes it the best setting to provide prevention of FASD.[9] The U.S. Preventive Services Task Force (USPSTF) recommends screening and brief counseling intervention (SBI) in primary care

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TABLE 1. The DSM-IV diagnostic criteria for alcohol dependence require three or more of the following criteria in a year

1. Tolerance
2. Withdrawal symptoms
3. Drinking more than intended
4. Unsuccessful attempts to decrease consumption
5. Excessive time related to alcohol (obtaining it or hangover)
6. Forfeiture of professional and recreational activities as a result of alcohol use
7. Use despite physical or psychological consequences

Adapted with permission from American Psychiatric Association.[4]

settings to reduce alcohol misuse.[8] The CDC, American Academy of Family Physicians (AAFP), and American Congress of Obstetrics and Gynecology (ACOG) recommend that all women of childbearing age be screened for alcohol use in order to prevent alcohol-related birth defects.[10–12] The USPSTF defines risky or hazardous drinking as more than 7 drinks per week or 3 per day for women and men over 65, and 14 drinks per week or 4 per day for men.[8] There are several resources available to assist physicians in addressing alcohol misuse. In 2005, the National Institute on Alcohol Abuse and Alcoholism (NIAAA) released an updated clinician's guide for helping patients with alcohol use problems.[13] ACOG also released "Drinking and Reproductive Health: A Fetal Alcohol Spectrum Disorders Prevention Tool Kit" for clinicians.[14] Screening tools for alcohol consumption use a series of questions to identify a patient's drinking habits. There are several alcohol-screening tools available, depending upon what is appropriate for the clinic's population and setting.

Screening for alcohol consumption can be easily integrated as a standard of care by making it a part of the patient's annual health assessment. The Tolerance, Worried, Eye opener, Amnesia, and K/cut down (TWEAK) and Tolerance, Annoyance, Cut down, and Eye opener (T-ACE) are screening tools specifically designed to identify risky drinking in pregnant women.[14–17] The Cut down, Annoyed, Guilty, and Eye opener (CAGE) is effective in identifying those who abuse alcohol or have dependence, rather than risky drinking.[18] The CAGE tool was designed for use among men and has not been shown to be effective among women of childbearing age or among pregnant women.[14,15]

The Alcohol Use Disorders Identification Test (AUDIT) was designed by the World Health Organization (WHO) for identifying risky drinking and alcohol dependence in primary care settings[19] and is the most universal tool with high validity and reliability (Table 2).[20–22] It consists of 10 multiple choice questions measuring hazardous alcohol use, dependence symptoms, and harmful alcohol use, and it can be completed and scored in 2–4 min.[20] Each choice has a number in parentheses, which is added up to give a total score ranging from 0 to 40. The scores are divided into categories, or in this case "Zones," based on the level of risk. Those who score 7 and below (Zone 1) are considered "abstainers or low-risk drinkers." Those who score between 8 and 15 (Zone 2) are considered "mild-to moderate-risk drinkers" and should receive simple advice on the daily recommendations for alcohol consumption. Those who score between 16 and 19 (Zone 3) are "moderate- to high-risk drinkers" and should receive brief counseling and continued monitoring. Those in Zone 3 are the target population for SBI since they are the group that may benefit the most from brief intervention.[23] Scores of 20 and above (Zone 4) have "probable alcohol dependence" and should be referred to specialized care.

Brief Intervention in Primary Care

Brief intervention is a face-to-face counseling technique that can be done in 1–4 sessions that last between 5 and 15 min and include feedback, advice, resources, and goal-setting. Several randomized controlled trials have found brief intervention to be an effective method for primary care settings in reducing alcohol consumption.[24–26] A review of studies reported a reduction in alcohol consumption from 13% to 34% among those who received brief intervention.[27] A randomized controlled trial revealed that brief intervention reduced the amount of alcohol consumed, and the frequency and the percentage of heavy drinking days 6 months after the initial intervention were given.[28] A meta-analysis included studies with follow-up periods from 6 months to 48 months after brief intervention was given. The analysis concluded that brief intervention showed benefits at 6 and 12 months of follow-up.[29]

Brief intervention has been shown to be most effective among risky drinkers compared to those who are alcohol dependent.[23,30] Brief intervention is both time efficient and a cost-effective approach for treating patients identified as risky drinkers.[31] Brief interventions use motivational interviewing approaches to facilitate change in the patient's drinking habits. One method for executing brief intervention is the 5 A's