Elderly Alcohol Use Disorders: Epidemiology, Screening, and Assessment Issues

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Alcohol misuse in older adults is often underdiagnosed in medical practice. This age group is rapidly moving into the treatment realm of the practicing general, geriatric, and addiction psychiatrist.

Elderly alcohol misuse is well documented and the rising numbers of elderly indicate that substance abuse and its treatment in this population is now a pressing public health concern. The number of persons aged 60 years and over has exceeded 700 million worldwide, the majority living in developed countries. Addiction specialists and organizations for the elderly anticipate a large number of baby boomers will need help with fighting alcohol misuse.

The current cohort of aging baby boomers has different attitudes toward treatment than the generation that came before them. This age group is rapidly moving into the treatment realm of the practicing general, geriatric, and addiction psychiatrist. As a cohort it is hypothesized that this group will have a more lenient attitude and greater need for treatment for alcohol than previous generations.

Epidemiology

Current community samples of alcohol use disorders (AUDs) from the National Epidemiological Survey of Alcohol and Related Conditions indicate that of those aged 65 and older, 2.36% of men and 0.38% of women met criteria for alcohol abuse. AUDs represent a continuum of problematic alcohol use. The terms heavy use, hazardous use, and harmful use have been defined to capture use of alcohol in amounts that are harmful to physical health but that do not necessarily meet DSM-5 criteria for Alcohol Use Disorder. These terms are defined according to number of drinks consumed. Measures that are based on quantity or frequency of alcohol consumption may more accurately describe the extent of problematic alcohol use in the elderly. The National Institute on Alcohol Abuse and Alcoholism (NIAAA) guidelines for adults aged 65 and older defines 7 drinks in one week as moderate drinking. These guidelines are the same for men and women.

Several quantity- and frequency-based surveys of alcohol use have been conducted in the last decade. Each of these surveys sampled older adults in the community. Using pooled data, the National Health Interview Survey describes the drinking patterns of those aged 60 or older. Of those who reported drinking during the year before the survey, 50% of men and 39% of the women were almost daily drinkers; 5.9% of all men and 0.9% of all women aged over 60 reported binge drinking once a month or more. In treatment settings such as doctors’ offices and emergency departments, substance abuse diagnosis is perhaps 10-fold more frequent than in the community setting.

Assessing alcohol misuse in the elderly

Often clinicians and family members are hesitant to ask if the older adult is having problems with alcohol. Traditionally accepted ways of detecting problems with substances (eg, time lost from work, legal problems, or decreased participation in important social activities) are not helpful in older adults because they generally have fewer activities and obligations. Older adults are likely to experience more problems with relatively small amounts of alcohol used because of increased sensitivity, slower metabolism, and a smaller volume of distribution. Cognitive impairment may
interfere with the ability of the older adult to self-monitor intake or understand feedback from healthcare providers. A more complete assessment may be needed to detect and treat alcohol misuse problems in the elderly.

**Types of alcohol problems in older adults**

Two groups of older individuals meeting AUD criteria are hypothesized—those diagnosed with AUD before age 60 and those who developed problems after age 60.8 Patients with an earlier onset AUD appear to have a more severe course of illness. This group makes up about two-thirds of the alcohol misusing drinkers in the elderly. They are predominantly male, have more alcohol-related medical problems and psychiatric comorbidities. They tend to be less well-adjusted and have more antisocial traits.

Patients with later-onset AUD usually have a milder clinical picture with fewer medical problems because of the shorter exposure to alcohol. They are more affluent, include more women, and are likely to begin their alcohol use after a stressful event, such as retirement, loss of a spouse, job, or home. Other risk factors for development of later life AUD include a personal and family history of alcohol abuse or dependence, chronic pain, predisposition to affective or anxiety disorders, and decreased alcohol metabolism.

Alcohol misuse in older adults is often underdiagnosed in medical practice. The US Preventive Services Task Force recommends routine alcohol screening be performed; however, there is insufficient screening for excessive alcohol consumption in the elderly. Only 13% of primary care physicians use a formal screening tool for alcohol problems.

Several screening tools have been developed for assessment of substance abuse. The CAGE questionnaire is the most widely studied alcohol-screening instrument, which was initially validated in young and middle-aged people. In the elderly, a score of 1 or more on this simple yes/no questionnaire consisting of 4 items is considered the cut-off for probable AUD. The test can be quickly applied and assesses lifetime prevalence of alcohol problems. The CAGE questionnaire provides higher specificity for the most severe cases, but it is of less value for the broader spectrum of alcohol misuse or hazardous use.

A shorter version of the Alcohol Use Disorders Identification Test (AUDIT)—the AUDIT-5—is often used with older adults. It was developed to identify people with hazardous levels of drinking. The Michigan Alcohol Screening Test-Geriatric Version (MAST-G) and its shorter version (SMAST-G) are self-administered check lists. They were designed to identify a population that drinks less. These screening devices may include a larger proportion of women. The SMAST-G may identify a larger number of older persons with AUDs than does CAGE. Fewer than half of people who screen positive on either CAGE or SMAST-G screened positive on both measures. A screening strategy that uses both measures may identify more AUDs in older adults with various demographic characteristics.

In the office, in addition to using screening tests, clinicians should also monitor patients for excessive daytime sleeping, declines in personal grooming and hygiene, and withdrawal from family, friends, and normal social activities.

**Medical assessment and implications**

Aging interferes with the body’s ability to adapt to the presence of alcohol. The medical evaluation of older adults who may be drinking alcohol excessively requires attention to the unique physiological features of the elderly and their increased susceptibility to alcohol. The elderly have a greater sensitivity to alcohol and a more limited cognitive reserve. Also, an age-related decrease in the volume of distribution results in 20% higher blood alcohol concentration per volume.

Nearly every organ in the body can be adversely affected by hazardous alcohol intake. The primary medical consequences of alcohol misuse in the elderly include: (1) mental status changes, (2) risk of falls, and (3) medication interactions.

Cognitive dysfunction can be caused by a number of organic and external conditions, including medications. Alcohol causes cognitive impairment in a dose-related fashion in the acute setting. Chronic alcohol consumption has been shown to cause persistent cognitive deficits with associated cortical atrophy and ventricular dilatation on brain scan. Consequently it is important to recognize the underlying incidence of diminished mental function in the elderly that ranges from mild cognitive impairment to dementia. The strongest risk factor for dementia is older age. The acute and chronic effects of alcohol are additive to any underlying cognitive infirmity in the geriatric patient.

Falls occur in approximately 30% of community-living adults who are older than 65 years of age. The elderly are at risk for falls because of impaired balance, poor judgment, arthritis, myopathy,
neuropathy, CNS atrophy, cerebellar degeneration, and hypotension. In addition, a history of problem drinking is associated significantly with greater risk of falls.\textsuperscript{18}

The geriatric population consumes a disproportionate percentage of pharmaceuticals. A survey in 2002 showed that 94\% of women aged 65 years or older took at least 1 medication; 57\% took 5 or more; and 12\% took 10 or more medications. Men aged 65 years or older also reported high rates of medication use.\textsuperscript{19} Confusion may be an early sign of an adverse effect. Alcohol use can directly or indirectly affect the pharmacodynamics and pharmacokinetics of medications and add potential for toxicity.

High mean corpuscular volume (MCV) and elevated gamma-glutamyl transpeptidase (GGT) are commonly used as simple biological screening instruments for alcohol misuse. However, these tests alone were found to be poor screening instruments for older adults with AUDs and should be used in conjunction with CAGE, AUDIT-5, or SMAST-G.\textsuperscript{9,20}

**Take home points**

- The prevalence of elderly substance abuse has been well documented and the rising numbers of older baby boomers indicate that alcohol misuse, its diagnosis, and treatment will shortly be one of the most pressing public health concerns in the developed world.
- There is a need to develop more time-efficient and valid screening instruments to aid in identifying older adults who are at risk for AUD.
- Improved overall medical understanding of the common problems associated with aging will help clinicians discern patients with alcohol misuse in this vulnerable population.
- Laboratory testing (GGT) and (MCV) may be helpful in addition to CAGE, SMAST-G, and AUDIT-5.

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**References:**


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