mental disorders in these chapters: "Schizophrenia Spectrum and Other Psychotic Disorders," "Bipolar and Related Disorders," "Depressive Disorders," "Anxiety Disorders," "Obsessive-Compulsive and Related Disorders," "Sleep-Wake Disorders," "Sexual Dysfunctions," and "Neurocognitive Disorders"). When recording a substance/medication-induced mental disorder that is comorbid with a substance use disorder, only a single diagnosis is given that reflects both the type of substance and the type of mental disorder induced by the substance, as well as the severity of the comorbid substance use disorder (e.g., cocaine-induced psychotic disorder with severe cocaine use disorder). For a substance-induced mental disorder occurring in the absence of comorbid substance use disorder (e.g., when the disorder is induced by one-time use of a substance or medication), only the substance/medication-induced mental disorder is recorded (e.g., corticosteroid-induced depressive disorder). Additional information needed to record the diagnostic name of the substance/medication-induced mental disorder is provided in the section "Recording Procedures" for each substance/medication-induced mental disorder in its respective chapter.

Alcohol-Related Disorders

Alcohol Use Disorder

Alcohol Intoxication

Alcohol Withdrawal

Alcohol-Induced Mental Disorders

Unspecified Alcohol-Related Disorder

Alcohol Use Disorder

Diagnostic Criteria

A. A problematic pattern of alcohol use leading to clinically significant impairment or distress, as manifested by at least two of the following, occurring within a 12-month period:

1. Alcohol is often taken in larger amounts or over a longer period than was intended.
2. There is a persistent desire or unsuccessful efforts to cut down or control alcohol use.
3. A great deal of time is spent in activities necessary to obtain alcohol, use alcohol, or recover from its effects.
4. Craving, or a strong desire or urge to use alcohol.
5. Recurrent alcohol use resulting in a failure to fulfill major role obligations at work, school, or home.
6. Continued alcohol use despite having persistent or recurrent social or interpersonal problems caused or exacerbated by the effects of alcohol.
7. Important social, occupational, or recreational activities are given up or reduced because of alcohol use.
8. Recurrent alcohol use in situations in which it is physically hazardous.

9. Alcohol use is continued despite knowledge of having a persistent or recurrent physical or psychological problem that is likely to have been caused or exacerbated by alcohol.
10. Tolerance, as defined by either of the following:
    a. A need for markedly increased amounts of alcohol to achieve intoxication or desired effect.
    b. A markedly diminished effect with continued use of the same amount of alcohol.
11. Withdrawal, as manifested by either of the following:
    a. The characteristic withdrawal syndrome for alcohol (refer to Criteria A and B of the criteria set for alcohol withdrawal).
    b. Alcohol (or a closely related substance, such as a benzodiazepine) is taken to relieve or avoid withdrawal symptoms.

Specify if:

In early remission: After full criteria for alcohol use disorder were previously met, none of the criteria for alcohol use disorder have been met for at least 3 months but for less than 12 months (with the exception that Criterion A4, "Craving, or a strong desire or urge to use alcohol," may be met).

In sustained remission: After full criteria for alcohol use disorder were previously met, none of the criteria for alcohol use disorder have been met at any time during a period of 12 months or longer (with the exception that Criterion A4, "Craving, or a strong desire or urge to use alcohol," may be met).

Specify if:

In a controlled environment: This additional specifier is used if the individual is in an environment where access to alcohol is restricted.

Code based on current severity/remission: If an alcohol intoxication, alcohol withdrawal, or another alcohol-induced mental disorder is also present, do not use the codes below for alcohol use disorder. Instead, the comorbid alcohol use disorder is indicated in the 4th character of the alcohol-induced disorder code (see the coding note for alcohol intoxication, alcohol withdrawal, or a specific alcohol-induced mental disorder). For example, if there is comorbid alcohol intoxication and alcohol use disorder, only the alcohol intoxication code is given, with the 4th character indicating whether the comorbid alcohol use disorder is mild, moderate, or severe: F10.129 for mild alcohol use disorder with alcohol intoxication or F10.229 for a moderate or severe alcohol use disorder with alcohol intoxication.

Specify current severity/remission:

F10.10 Mild: Presence of 2–3 symptoms.
F10.11 Mild, In early remission
F10.11 Mild, In sustained remission

F10.20 Moderate: Presence of 4–5 symptoms.
F10.21 Moderate, In early remission
F10.21 Moderate, In sustained remission

F10.20 Severe: Presence of 6 or more symptoms.
F10.21 Severe, In early remission
F10.21 Severe, In sustained remission

Specifiers

"In a controlled environment" applies as a further specifier of remission if the individual is both in remission and in a controlled environment (i.e., in early remission in a controlled environment or in sustained remission in a controlled environment). Examples of these environments are closely supervised and substance-free jails, therapeutic communities, and locked hospital units.

Severity of the disorder is based on the number of diagnostic criteria that are met. For a given individual, changes in severity of alcohol use disorder across time are also reflected by reductions in the frequency (e.g., days of use per month) or dose (e.g., number of standard drinks consumed per day) of alcohol used, as assessed by the individual's self-report, report of knowledgeable others, clinician observations, and, when practical, biological testing (e.g., elevations in blood tests as described in the section "Diagnostic Markers" for this disorder).

Diagnostic Features

Alcohol use disorder is defined by a cluster of behavioral and physical symptoms, such as withdrawal, tolerance, and craving. Alcohol withdrawal is characterized by withdrawal symptoms that develop approximately 4–12 hours after the reduction of intake following prolonged, heavy alcohol ingestion. Because withdrawal from alcohol can be unpleasant and intense, individuals may continue to consume alcohol despite adverse consequences, often to avoid or to relieve withdrawal symptoms. Some withdrawal symptoms (e.g., sleep problems) can persist at lower intensities for months and can contribute to relapse. Once a pattern of repetitive and intense use develops, individuals with alcohol use disorder may devote substantial periods of their time to obtaining and consuming alcoholic beverages.

Craving for alcohol is indicated by a strong desire to drink that makes it difficult to think of anything else and that often results in the onset of drinking. School and job performance may also suffer either from the aftereffects of drinking or from actual intoxication at school or on the job; child care or household responsibilities may be neglected; and alcohol-related absences may occur from school or work. The individual may use alcohol in physically hazardous circumstances (e.g., driving an automobile, swimming, operating machinery while intoxicated). Finally, individuals with an alcohol use disorder may continue to consume alcohol despite the knowledge that continued consumption poses significant physical (e.g., blackouts, liver disease), psychological (e.g., depression), social, or interpersonal problems (e.g., violent arguments with spouse while intoxicated, child abuse).

Associated Features

Alcohol use disorder is often associated with problems similar to those associated with other substances (e.g., cannabis; cocaine; heroin; amphetamines; sedatives, hypnotics, or anxiolytics). Alcohol may be used to alleviate the unwanted effects of these other substances or to substitute for them when they are not available. Symptoms of conduct problems, depression, anxiety, and insomnia frequently accompany heavy drinking and sometimes precede it.

Repeated intake of high doses of alcohol can affect nearly every organ system, especially the gastrointestinal tract, cardiovascular system, and the central and peripheral nervous systems. Gastrointestinal effects include gastritis, stomach or duodenal ulcers, and, in about 15% of individuals who use alcohol heavily, liver cirrhosis and/or pancreatitis. There is also an increased rate of cancer of the esophagus, stomach, and other parts of the gastrointestinal tract. One of the most commonly associated conditions is low-grade hypertension. Cardiomyopathy and other myopathies are less common but occur at an increased rate among those who drink very heavily. These factors, along with marked in-

creases in levels of triglycerides and low-density lipoprotein cholesterol, contribute to an elevated risk of heart disease. Peripheral neuropathy may be evidenced by muscular weakness, paresthesias, and decreased peripheral sensation. More persistent central nervous system effects include cognitive deficits, such as severe memory impairment and degenerative changes in the cerebellum. These effects are related to the direct effects of alcohol, trauma, or vitamin deficiencies (particularly of the B vitamins, including thiamine). One devastating central nervous system effect is the relatively rare alcohol-induced persisting amnestic disorder, or Wernicke-Korsakoff syndrome, in which the ability to encode new memory is severely impaired. This condition would now be described within the chapter "Neurocognitive Disorders" and would be termed a *substance/medication-induced neurocognitive disorder.*

Alcohol use disorder is an important contributor to suicide risk during severe intoxication and in the context of a temporary alcohol-induced depressive or bipolar disorder. There is an increased rate of suicidal behavior as well as of suicide among individuals with the disorder.

Prevalence

Alcohol use disorder is common. In the United States, lifetime prevalence rates of DSM-5 alcohol use disorder among adults were estimated to be 29.1% overall with severity specified as follows: 8.6% mild, 6.6% moderate, and 13.9% severe. Among Australian adults, the estimated lifetime prevalence of DSM-5 alcohol use disorder was 31.0%.

Rates of disorder vary by gender and age. In the United States, rates were greater among men (36.0% lifetime prevalence) than among women (22.7%). Twelve-month prevalence of DSM-IV alcohol use disorders in the United States was 4.6% among individuals ages 12–17 years, 16.2% among individuals ages 18–29 years, and 1.5% among individuals 65 years and older.

Twelve-month prevalence of alcohol use disorders varies across U.S. ethnoracial groups as well. For individuals ages 12–17 years, prevalence of DSM-IV alcohol use disorders was greatest among Native Americans (2.8%) and non-Latinx Whites (2.2%), relative to Asian Americans (1.6%), individuals reporting two or more racialized backgrounds (1.6%), Hispanics (1.5%), and African Americans (0.8%). Among adults, data from a large U.S. population-based study indicated that the 12-month prevalence of DSM-5 alcohol use disorder was 14.4% in African Americans, 14.0% in non-Hispanic Whites, 13.6% in Hispanics, and 10.6% in Asian Americans and Pacific Islanders. Data from a large community-based survey of Native Americans from Southwestern and Northern Plains tribal nations showed that the 12-month prevalence of DSM-IV alcohol abuse and dependence ranged from 4.1% to 9.8%. There is extensive diversity in the rates and patterns of alcohol abuse and dependence across the more than 570 American Indian and Alaska Native communities in the United States, as well as high rates of abstinence from alcohol use in some of these communities. Historical experiences of dispossession and subjugation and ongoing discrimination have been associated with increased risk of symptom onset. Given the diversity of tribal communities, prevalence estimates for alcohol use disorder among Native Americans should be interpreted with caution.

Development and Course

The first episode of alcohol intoxication is likely to occur during the mid-teens. Alcohol-related problems that do not meet full criteria for a use disorder or isolated problems may occur before age 20 years, but the age at onset of an alcohol use disorder with two or more of the criteria clustered together peaks in the late teens or early to mid 20s. The large majority of individuals who develop alcohol-related disorders do so by their late 30s. The first evidence of withdrawal is not likely to appear until after many other aspects of an alcohol use disorder have developed. An earlier onset of alcohol use disorder is observed in adolescents with preexisting conduct problems and those with an earlier onset of intoxication.

Alcohol use disorder has a variable course that is characterized by periods of remission and relapse. A decision to stop drinking, often in response to a crisis, is likely to be followed by a period of weeks or more of abstinence, which is often followed by limited periods of controlled or nonproblematic drinking. However, once alcohol intake resumes, it is highly likely that consumption will rapidly escalate and that severe problems will once again develop.

Alcohol use disorder is often erroneously perceived as an intractable condition, perhaps based on the fact that individuals who present for treatment typically have a history of many years of severe alcohol-related problems. However, these most severe cases represent only a minority of individuals with this disorder, and the typical individual with the disorder has a much more promising prognosis.

Among adolescents, conduct disorder and repeated antisocial behavior often co-occur with alcohol- and with other substance-related disorders. While most individuals with alcohol use disorder develop the condition before age 40 years, perhaps 10% have later onset, as suggested by a prospective study in California. Age-related physical changes in older individuals result in increased brain susceptibility to the depressant effects of alcohol; decreased rates of liver metabolism of a variety of substances, including alcohol; and decreased percentages of body water. These changes can cause older people to develop more severe intoxication and subsequent problems at lower levels of consumption. Alcohol-related problems in older people are also especially likely to be associated with other medical complications.

Risk and Prognostic Factors

Environmental. Environmental risk and prognostic factors may include poverty and discrimination (including structural inequities such as differential incarceration rates and differential access to medications for addiction treatment), unemployment and low levels of education, cultural attitudes toward drinking and intoxication, the availability of alcohol (including price), acquired personal experiences with alcohol, and stress levels. Additional potential mediators of how alcohol problems develop in predisposed individuals include heavier peer substance use, exaggerated positive expectations of the effects of alcohol, and suboptimal ways of coping with stress.

Genetic and physiological. Alcohol use disorder runs in families, with 40%–60% of the variance of risk explained by genetic influences. The rate of this condition is three to four times higher in close relatives of individuals with alcohol use disorder, with values highest for individuals with a greater number of affected relatives, closer genetic relationships to the affected individual, and higher severity of the alcohol-related problems in those relatives. A significantly higher rate of alcohol use disorder exists in the monozygotic twin than in the dizygotic twin of an individual with the condition. A three- to fourfold increase in risk has been observed in children of individuals with alcohol use disorder, even when these children were given up for adoption at birth and raised by adoptive parents who did not have the disorder.

Advances in understanding the genes that operate through intermediate characteristics (or phenotypes) to affect the risk of alcohol use disorder can help to identify individuals who might be at particularly low or high risk for alcohol use disorder. Among the low-risk phenotypes is the acute alcohol-related skin flush (seen more commonly in persons of Asian descent). High vulnerability is associated with preexisting schizophrenia or bipolar disorder, as well as impulsivity (producing enhanced rates of all substance use disorders and gambling disorder), and a high risk specifically for alcohol use disorder is associated with a low level of response (low sensitivity) to alcohol. A number of gene variations may account for low response to alcohol or modulate the dopamine reward systems; however, any single gene variant is likely to explain only 1%–2% of the risk for these disorders. Gene-environment interactions modulate the impact of genetic variations; for ex-

ample, genetic effects on alcohol use are more pronounced when social constraints are minimized (e.g., low parental monitoring) or when the environment permits easy access to alcohol or encourages its use (e.g., high peer deviance).

Course modifiers. In general, high levels of impulsivity are associated with an earlier onset and more severe alcohol use disorder.

Culture-Related Diagnostic Issues

In most cultures, alcohol is the most frequently used intoxicating substance and contributes to considerable morbidity and mortality. Globally, 2.8 million deaths were attributed to alcohol use, which corresponds to 2.2% of total age-standardized deaths among women and 6.8% among men. Globally, an estimated 237 million men and 46 million women have alcohol use disorder, with the highest prevalence being among men and women in the European Region (14.8% and 3.5%) and the Region of the Americas (11.5% and 5.1%); in general, high-income countries have the highest prevalence. Greater acculturation to U.S. society among immigrants is associated with rising prevalence of alcohol use disorder, especially among women. Ethnic density (greater proportion of people from the same background) may decrease the risk of alcohol use disorder because of greater social support and buffering against the effects of discrimination. However, neighborhood segregation may increase the risk for disorders because of the association with other risk factors, such as higher concentration of alcohol advertising and retail outlets in low-income areas.

Genetic polymorphisms for the alcohol-metabolizing enzymes alcohol dehydrogenase and aldehyde dehydrogenase may affect the response to alcohol. When consuming alcohol, individuals with certain polymorphisms can experience a flushed face and palpitations, reactions that can be so severe as to limit or preclude future alcohol consumption and diminish the risk for alcohol use disorder. For example, these gene variations are seen in as many as 40% of Japanese, Chinese, and Korean individuals and are related to lower risks for the disorder. However, this protective effect may be modulated by sociocultural factors, as shown by rising prevalence of alcohol use disorder in Japan, China, and South Korea over the last decades associated with increasing westernization and changing cultural attitudes about women's drinking.

Despite small variations regarding individual criterion items, the diagnostic criteria perform equally well across most race/ethnicity groups.

Sex- and Gender-Related Diagnostic Issues

Men have higher rates of drinking and alcohol use disorder than women, although the gender gap is narrowing as women are initiating alcohol use at a younger age. Because females generally weigh less than males, have more fat and less water in their bodies, and metabolize less alcohol in their esophagus and stomach, they are likely to develop higher blood alcohol levels per drink than males. Females who drink heavily may also be more vulnerable than males to some of the physical consequences associated with alcohol, including alcohol-related blackouts and liver disease. Additionally, while genetic-related mechanisms for alcohol risk overlap for males and females, the specific environmental components that add to the risk may differ across sexes, especially during adolescence. Drinking during pregnancy, which tends to decrease overall, may be a sign of an alcohol use disorder.

Diagnostic Markers

Individuals whose heavier drinking places them at elevated risk for alcohol use disorder can be identified both through standardized questionnaires and by elevations in blood test results likely to be seen with regular heavier drinking. These measures do not establish a diagnosis of an alcohol-related disorder but can be useful in highlighting individuals for

whom more information should be gathered. The most direct test available to measure alcohol consumption cross-sectionally is *blood alcohol concentration*, which can also be used to judge tolerance to alcohol. For example, an individual with a concentration of 150 mg of ethanol per deciliter (dL) of blood who does not show signs of intoxication can be presumed to have acquired at least some degree of tolerance to alcohol. At 200 mg/dL, most nontolerant individuals demonstrate severe intoxication.

Regarding laboratory tests, one sensitive laboratory indicator of heavy drinking is a modest elevation or high-normal levels (>35 units) of gamma-glutamyltransferase (GGT). This may be the only laboratory finding. At least 70% of individuals with a high GGT level are persistent heavy drinkers (i.e., consuming eight or more drinks daily on a regular basis). A second test with comparable or even higher levels of sensitivity and specificity is carbohydrate-deficient transferrin (CDT), with levels of 20 units or higher useful in identifying individuals who regularly consume eight or more drinks daily. Given that both GGT and CDT levels return toward normal within days to weeks of stopping drinking, both state markers may be useful in monitoring abstinence, especially when the clinician observes increases, rather than decreases, in these values over time—a finding indicating that the individual is likely to have returned to heavy drinking. The combination of tests for CDT and GGT may have even higher levels of sensitivity and specificity than either test used alone. Additional useful tests include the mean corpuscular volume (MCV), which may be elevated to high-normal values in individuals who drink heavily—a change that is due to the direct toxic effects of alcohol on erythropoiesis. Although the MCV can be used to help identify those who drink heavily, it is a poor method of monitoring abstinence because of the long half-life of red blood cells. Liver function tests (e.g., alanine aminotransferase and alkaline phosphatase) can reveal liver injury that is a consequence of heavy drinking. Other potential markers of heavy drinking that are more nonspecific for alcohol but can help the clinician think of the possible effects of alcohol include elevations in blood levels or lipids (e.g., triglycerides and high-density lipoprotein cholesterol) and high-normal levels of uric acid.

Additional diagnostic markers relate to signs and symptoms that reflect the consequences often associated with persistent heavy drinking. For example, dyspepsia, nausea, and bloating can accompany gastritis, and hepatomegaly, esophageal varices, and hemorrhoids may reflect alcohol-induced changes in the liver. Other physical signs of heavy drinking include tremor, unsteady gait, insomnia, and erectile dysfunction. Males with chronic alcohol use disorder may exhibit decreased testicular size and feminizing effects associated with reduced testosterone levels. Repeated heavy drinking in females is associated with menstrual irregularities and, during pregnancy, spontaneous abortion and fetal alcohol syndrome. Individuals with preexisting histories of epilepsy or severe head trauma are more likely to develop alcohol-related seizures. Alcohol withdrawal may be associated with nausea, vomiting, gastritis, hematemesis, dry mouth, puffy blotchy complexion, and mild peripheral edema.

Association With Suicidal Thoughts or Behavior

Most studies on suicidality and alcohol address alcohol consumption rather than alcohol use disorder. However, a psychological autopsy study in Australia found that aggression, psychiatric comorbidity, and recent interpersonal conflicts are suicide risk factors in individuals with alcohol use disorder. A review of studies from 1999 through 2014 conducted in several countries, including the United States, reported that both intoxication and chronic heavy alcohol use are associated with suicide, extensive population-level data link alcohol with suicide, and there is evidence suggesting that restrictive alcohol policies may help prevent suicide on a general population level. A meta-analysis of studies conducted in the United States and several other countries from 1996 through 2015 found that compared with nondrinking individuals, the acute use of alcohol was associated with a nearly

sevenfold increase in risk of suicide attempt. Moreover, in this meta-analysis, as well as in U.S.-based case-control crossover studies, heavier alcohol use within 24 hours was a much more potent risk factor for suicide attempt than lower alcohol use. In a cohort of patients in Mississippi, acute co-use of alcohol and sedatives had an even stronger association with suicide attempt compared with alcohol use alone. A systematic review and meta-analysis of studies from 1975 through 2014 in several countries, including the United States, found that alcohol use is associated with possession of firearms, that alcohol drinkers are four to six times more likely to die by suicide with a gun than nondrinkers, and that heavy drinkers are more likely to choose firearms over other suicide methods compared with nondrinkers.

Functional Consequences of Alcohol Use Disorder

The diagnostic features of alcohol use disorder highlight major areas of life functioning likely to be impaired. These include driving and operating machinery, school and work, interpersonal relationships and communication, and health. Alcohol-related disorders contribute to absenteeism from work, job-related accidents, and low employee productivity. Rates are elevated in homeless individuals, perhaps reflecting a downward spiral in social and occupational functioning, although most individuals with alcohol use disorder continue to live with their families and function within their jobs.

Alcohol use disorder is associated with a significant increase in the risk of accidents, violence, and suicide. It is estimated that one in five intensive care unit admissions in some urban hospitals is related to alcohol and that 40% of individuals in the United States experience an alcohol-related adverse event at some time in their lives, with alcohol accounting for up to 55% of fatal driving events. Severe alcohol use disorder, especially in individuals with antisocial personality disorder, is associated with the commission of criminal acts, including homicide. Severe problematic alcohol use also contributes to disinhibition and feelings of sadness and irritability, which contribute to suicide attempts and suicide.

Unanticipated alcohol withdrawal in hospitalized individuals for whom a diagnosis of alcohol use disorder has been overlooked can add to the risks and costs of hospitalization and to time spent in the hospital.

Differential Diagnosis

Nonpathological use of alcohol. The key element of alcohol use disorder is the use of heavy doses of alcohol with resulting repeated and significant distress or impaired functioning. While most drinkers sometimes consume enough alcohol to feel intoxicated, only a minority (<20%) ever develop alcohol use disorder. Therefore, drinking, even daily, in low doses and occasional intoxication do not by themselves make this diagnosis.

Alcohol intoxication, alcohol withdrawal, and alcohol-induced mental disorders. Alcohol use disorder is differentiated from alcohol intoxication, alcohol withdrawal, and alcohol induced mental disorders (e.g., alcohol-induced depressive disorder) in that alcohol use disorder describes a problematic pattern of alcohol use that involves impaired control over alcohol use, social impairment due to alcohol use, risky alcohol use (e.g., driving while intoxicated), and pharmacological symptoms (the development of tolerance or withdrawal), whereas alcohol intoxication, alcohol withdrawal, and alcohol-induced mental disorders describe psychiatric syndromes that develop in the context of heavy use. Alcohol intoxication, alcohol withdrawal, and alcohol-induced mental disorders occur frequently in individuals with alcohol use disorder. In such cases, a diagnosis of alcohol intoxication, alcohol withdrawal, or an alcohol-induced mental disorder should be given in addition to

a diagnosis of alcohol use disorder, the presence of which is indicated in the diagnostic code.

Sedative, hypnotic, or anxiolytic use disorder. The signs and symptoms of alcohol use disorder are similar to those seen in sedative, hypnotic, or anxiolytic use disorder. The two must be distinguished, however, because the course may be different, especially in relation to medical problems.

Conduct disorder in childhood and antisocial personality disorder. Alcohol use disorder, along with other substance use disorders, is seen in the majority of individuals with antisocial personality disorder and preexisting conduct disorder. Because these diagnoses are associated with an early onset of alcohol use disorder as well as a worse prognosis, it is important to establish both conditions.

Comorbidity

Bipolar disorders, schizophrenia, and antisocial personality disorder are associated with alcohol use disorder, and most anxiety and depressive disorders are associated with alcohol use disorder as well. At least a part of the reported association between depression and moderate to severe alcohol use disorder may be attributable to temporary, alcohol-induced comorbid depressive symptoms resulting from the acute effects of intoxication or withdrawal, although this point has long been debated. Severe, repeated alcohol intoxication may also suppress immune mechanisms and predispose individuals to infections and increase the risk for cancers.

Alcohol Intoxication

Diagnostic Criteria

A. Recent ingestion of alcohol.

B. Clinically significant problematic behavioral or psychological changes (e.g., inappropriate sexual or aggressive behavior, mood lability, impaired judgment) that developed during, or shortly after, alcohol ingestion.

C. One (or more) of the following signs or symptoms developing during, or shortly after, alcohol use:

   1. Slurred speech.
   2. Incoordination.
   3. Unsteady gait.
   4. Nystagmus.
   5. Impairment in attention or memory.
   6. Stupor or coma.

D. The signs or symptoms are not attributable to another medical condition and are not better explained by another mental disorder, including intoxication with another substance.

Coding note: The ICD-10-CM code depends on whether there is a comorbid alcohol use disorder. If a mild alcohol use disorder is comorbid, the ICD-10-CM code is **F10.120,** and if a moderate or severe alcohol use disorder is comorbid, the ICD-10-CM code is **F10.220.** If there is no comorbid alcohol use disorder, then the ICD-10-CM code is **F10.920.**

Diagnostic Features

The essential feature of alcohol intoxication is the presence of clinically significant and sometimes life-threatening problematic behavioral or psychological changes (e.g., inappropriate sexual or aggressive behavior, mood lability, impaired judgment and decision-making, difficulties with complex tasks such as driving, and impaired social or occupational functioning) that develop during, or shortly after, alcohol ingestion (Criterion B). These changes are accompanied by evidence of impaired functioning and judgment and, if intoxication is intense, can result in a life-threatening coma. The symptoms must not be attributable to another medical condition (e.g., diabetic ketoacidosis), are not a reflection of conditions such as delirium, and are not related to intoxication with other depressant drugs (e.g., benzodiazepines) (Criterion D). The levels of incoordination can interfere with driving abilities and performance of usual activities to the point of causing vehicle crashes or other events resulting in injury. Evidence of alcohol use can be obtained by smelling alcohol on the individual's breath, eliciting a history from the individual or another observer, and, when needed, having the individual provide breath, blood, or urine samples for toxicology analyses.

Associated Features

Signs and symptoms of intoxication are likely to be more intense when the blood alcohol level is rising than when it is falling. The duration of intoxication depends on how much alcohol was consumed over what period of time. In general, the body is able to metabolize approximately one drink per hour, so that the blood alcohol level generally decreases at a rate of 15–20 mg/dL per hour.

During even mild alcohol intoxication, different symptoms are likely to be observed at different time points. Evidence of mild intoxication with alcohol can be seen in most individuals after approximately two drinks (each standard drink is approximately 10–12 grams of ethanol and raises the blood alcohol concentration approximately 20 mg/dL). Early in the drinking period, when blood alcohol levels are rising, symptoms often reflect stimulation (e.g., talkativeness, a sensation of well-being, a bright, expansive mood). Later, especially when blood alcohol levels are falling, the individual is likely to become progressively more depressed, withdrawn, and cognitively impaired.

Alcohol intoxication is sometimes associated with amnesia for the events that occurred during the course of the intoxication ("blackouts"). This phenomenon is related to a relatively high blood alcohol level and, perhaps, to the rapidity with which this level is reached. Acute alcohol intoxication may cause metabolic alterations (e.g., hypoglycemia, electrolyte disturbances) and may have severe cardiovascular, respiratory, and/or gastrointestinal effects. At very high blood alcohol levels (e.g., 200–300 mg/dL), an individual who has not developed tolerance for alcohol is likely to fall asleep and enter a first stage of anesthesia. Higher blood alcohol levels (e.g., in excess of 300–400 mg/dL) can cause inhibition of respiration and pulse and even death in nontolerant individuals.

Alcohol intoxication is an important contributor to interpersonal violence and suicidal behavior. Among individuals intoxicated by alcohol, there appears to be an increased rate of accidental injury (including death due to behaviors associated with altered judgment, self-harm, and violence), suicidal behavior, and suicide.

Prevalence

The large majority of alcohol consumers are likely to have been intoxicated to some degree at some point in their lives. For example, in 2018, 43% of 12th-grade students in the United States reported having "been drunk" at least once in their lifetime, and 17.5% of them reported that they had gotten drunk at least once in the prior 30 days. Using a definition of intoxication of four or more standard drinks on any day for women and five or more