ABC of mental health

Addiction and dependence—II: Alcohol

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Prevalence of alcohol related problems

As with any drug of addiction, there are four levels of alcohol use.

Social drinking—Only about 10% of the population are teetotal.

At risk consumption—This is the level of alcohol intake that, if maintained, poses a risk to health. *The Health of the Nation* gives “safe” levels of consumption—21 units a week for men and 14 units for women. These levels are exceeded by a sizeable minority of the population—28% of men and 11% of women.

Problem drinking—At this level, consumption causes serious problems to drinkers, their family and social network, or to society. About 1-2% of the population have alcohol problems.

Dependence and addiction—The characteristics of dependence apply to alcohol as to other drugs—periodic or chronic intoxication, uncontrollable craving, tolerance resulting in dose increase, dependence (either psychological or physical), and a detrimental result to the person or society. There are about 200 000 dependent drinkers in the United Kingdom.

Factors affecting consumption

Consumption of alcohol depends on several variables.

Sex—Although men are twice as likely to have alcohol related problems, the gap between the sexes is narrowing.

Occupation—Alcohol misuse is more common in jobs related to catering, brewing, and distilling. In others, such as doctors, sailors, and demolition workers, high consumption is perceived as the social norm.

Homelessness—About a third of homeless people have alcohol problems.

Race—British Afro-Caribbeans and south Asians have lower average consumption and lower hospital admission rates for alcohol related problems than white people. However, pockets of high consumption exist, as has been reported among Sikh men (particularly of spirits). About a fifth of Chinese and Japanese people cannot drink alcohol because of an inherited lack of the liver enzyme acetaldehyde dehydrogenase.

Recognising problem drinking

Recognising people with alcohol related problems is difficult—probably less than 20% are known to their general practitioner, and a large proportion are missed in accident and emergency departments. Recognition is particularly difficult among teenagers, elderly people, and doctors. About half of the doctors reported to the General Medical Council for health difficulties liable to affect professional competence have an alcohol problem.

Doctors may be alerted to an alcohol problem by the presenting complaint. The essential first stage in improving recognition is taking a drinking history, and this should be combined with selected investigations.

- Amount of alcohol consumed in units. Always inquire about quantity and type of drink. Many doctors are unaware of the unit values for common descriptions of daily intake
- Time of first alcoholic drink of the day
- Pattern of drinking: problem drinking is characterised by the establishment of an unvarying pattern of daily drinking

Alcohol exacts a huge toll on the nation's physical, social, and psychological health. Consumption doubled between 1950 and 1980, during which time the relative price of alcohol halved. Since then consumption has flattened off

Alcohol related problems

- 33 000 premature deaths a year in England and Wales are related to alcohol consumption
- 300 of these deaths are the direct result of alcoholic liver damage (the true figure is probably many times higher but is hidden by underreporting on death certificates)

Alcohol consumption is associated with

- 80% of suicides
- 50% of murders
- 80% of deaths from fire
- 40% of road traffic accidents
- 30% of fatal road traffic accidents
- 15% of drownings

Alcohol consumption contributes to

- 1 in 3 divorces
- 1 in 3 cases of child abuse
- 20-30% of all hospital admissions

People lacking the liver enzyme acetaldehyde dehydrogenase experience extremely unpleasant reactions on exposure to alcohol because of accumulation of acetaldehyde. Reactions include nausea, flushing, headache, palpitations and collapse. Alcohol evokes a similar response in patients who are given disulfiram

Alcohol content of alcoholic drinks

1 unit of alcohol=1 cl alcohol=about 10 g

Beers, lagers, cider

1 pint = 2 units
1 can = 1½ units

Low alcohol beers, lagers, cider

1 pint = ¾ unit
1 can = ½ unit

Strong beers, lagers, cider

1 pint = 3 units
1 can = 2¼ units

Extra strong beers, lagers, cider

1 pint = 5 units
1 can = 4 units

Table wine

1 glass = 1 unit
1 bottle (75 cl) = 8 units

Sherry

1 standard small measure = 1 unit
1 bottle = 13 units

Spirits

1 standard measure (England and Wales) = 1 unit

1 standard measure (Scotland and Northern Ireland) = 1½ units
1 bottle = 30 units

Be on your guard for

- “Alco-pops”—These are increasingly popular mixtures of alcohol and fruit flavoured drink. One bottle contains 1½ units of alcohol (equivalent to a can of lager)
- Extra strong lager is relatively cheap but contains 4 units of alcohol per can (equivalent to two pints of ordinary beer)

- Presence of withdrawal symptoms such as early morning shakes or nausea.

Specific questioning should continue with the CAGE questionnaire. Investigation should include measuring the mean corpuscular volume and γ -glutamyl transferase activity. This combination of tests will detect about 75% of people with an alcohol problem, while measuring γ -glutamyl transferase alone detects only a third of cases.

CAGE questionnaire

Alcohol dependence is likely if the patient gives two or more positive answers to the following questions:

- Have you ever felt you should Cut down on your drinking?
- Have people Annoyed you by criticising your drinking?
- Have you ever felt bad or Guilty about your drinking?
- Have you ever had a drink first thing in the morning to steady your nerves or get rid of a hangover (Eye-opener)?

Presentation of alcohol problems or dependence

Social presentations

Probably the most common presentations, they include

- Requests for medical certificates
- Marital problems, divorce, domestic violence
- Financial problems, absenteeism, accidents at work
- Public drunkenness or aggression, football hooliganism
- Prosecutions for violent behaviour or driving offences, sexual assault, and vagrancy

Medical presentations

About 80% of patients referred for treatment of alcohol misuse have important medical problems. Withdrawal symptoms are often experienced on waking. Features of specific complications are extremely varied:

- Gastrointestinal*—hepatitis, cirrhosis, gastritis, gastrointestinal haemorrhage, pancreatitis
- Cardiovascular*—hypertension (causing increased rates of cerebrovascular and coronary artery disease), arrhythmias, cardiomyopathy
- Cancers*—mouth, oesophagus, liver, and possibly colon and breast
- Obstetric*—fetal alcohol syndrome
- Neurological*—blackouts, fits, neuropathy, acute confusional states, subdural haematoma, Wernicke's encephalopathy, Korsakoff's psychosis
- Musculoskeletal*—gout

Psychiatric presentations

Depression—All the features of depression can be induced by alcohol. Depression can itself cause alcoholism by triggering drinking in an attempt to relieve some of the depressive symptoms

Anxiety—These symptoms often present during partial withdrawal. Just as with depression, an anxiety or panic disorder can predispose to alcohol excess in an attempt to relieve symptoms

Personality change—Decline in the usual standards of social concern and personal care

Sexual dysfunction—Impotence, delayed ejaculation

Hallucinations—Both auditory and visual, usually during withdrawal but can occur without the other features of delirium tremens

Alcoholic hallucinosis—Rare, distressing auditory hallucinations occurring in clear consciousness

Managing problem drinking

Brief intervention

Randomised controlled trials have shown general practitioners' interventions to be effective. Brief intervention consists of assessing the patient's alcohol intake, providing information about the effects of alcohol, giving advice on reducing consumption, and "motivational interviewing." Although simple, this form of intervention achieves more than a 20% reduction in alcohol consumption among problem drinkers.

Other specialist options, such as inpatient or outpatient care and long term counselling, are available, but there is little evidence that any of these are more effective than brief intervention.

Controlled drinking or abstinence

If drinking is excessive but largely without problems then controlled drinking can be a realistic option. Tactics to achieve this include reducing the alcoholic strength of drinks, spacing drinks, alternating alcoholic with non-alcoholic drinks, and eating with drinks.

Abstinence is recommended if there is established alcohol dependence, marked physical damage, or when controlled drinking has failed. Abstinence should be long term, but some patients succeed in returning to controlled drinking after a period of abstinence. An unrealistic emphasis on abstinence may be counterproductive and end up triggering spectacular relapse.

About a third of people who seriously misuse alcohol recover without any professional intervention

Classification of alcohol related disorders

Acute intoxication—At low doses, alcohol may have stimulant effects, but these give way to agitation and, ultimately, sedation at higher doses. "Drunkenness" may be uncomplicated or may lead to hangover, trauma, delirium, convulsions, or coma

Pathological intoxication—A state in which even small quantities of alcohol produce sudden, uncharacteristic outbursts of violent behaviour

Harmful use—Actual physical or mental harm to the user, and associated disruption of his or her social life

Dependence syndrome—Craving for alcohol that overrides the normal social constraints on drinking. This state is known colloquially as alcoholism and includes dipsomania

Withdrawal states—With or without delirium. Delirium tremens is a medical emergency that requires rapid recognition and treatment

Psychotic disorder—Includes hallucinosis, paranoid states, and so called "pathological jealousy"

Amnesic syndrome—Impairment of recent memory (that is, for events that occurred a few hours previously), while both immediate recall and memories of more remote events are relatively preserved

Managing alcohol dependence

Detoxification

Alcohol dependence usually requires controlled detoxification with an attenuation therapy (such as a benzodiazepine) since abrupt cessation of alcohol can induce one of the withdrawal states. Detoxification is increasingly taking place in the community, but inpatient detoxification is recommended for

those at risk of suicide, lacking social support, or giving a history of severe withdrawal reactions including fits and delirium tremens.

The important principles of community detoxification are:

- Daily supervision in order to allow early detection of complications such as delirium tremens, continuous vomiting, or deterioration in mental state
- Multivitamin preparations to prevent the onset of Wernicke's encephalopathy. An oral preparation providing at least 200 mg thiamine daily should be given for one month to all patients undergoing withdrawal. Severely alcohol dependent patients will need parenteral vitamins (such as Pabrinex) for three to six days before changing to oral treatment. Caution is needed with parenteral administration of thiamine: the Committee on Safety of Medicines recommends that intravenous injections are given slowly (over 10 minutes) and that facilities for treating anaphylaxis should be available
- Benzodiazepines to prevent a withdrawal syndrome. The most commonly used benzodiazepine is chlordiazepoxide at a starting dose of 10 mg four times daily and reducing over seven days. Larger doses are used in severe withdrawal—for example, 40 mg four times daily reducing over 10 days.

Support after withdrawal

The relapse rate among alcoholics is high but can be reduced by a programme of rehabilitation. Various options are available to assist in maintaining recovery:

- The primary healthcare team
- The community alcohol team
- Residential rehabilitation programmes
- Voluntary organisations providing support and counselling, either individually or in groups (organisations are listed in local telephone directories)
- Disulfiram has a small but useful role to play in maintaining abstinence. Patients who take disulfiram (which inhibits acetaldehyde dehydrogenase) experience the extremely unpleasant symptoms of acetaldehyde accumulation if they drink any alcohol. Controlled studies show that supervised administration, either alone or as an adjunct to psychosocial methods, is one of the few effective interventions in alcohol dependence. Abstinence rates approaching 60% at one year have been reported. A depot preparation is being developed, which may overcome problems with compliance
- Referral to specialist mental health services for patients who show substantial psychiatric comorbidity. An important subgroup of alcoholics will require treatment for phobic anxiety or recurrent depression.

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Alcohol withdrawal states

Withdrawal syndrome

Not every heavy drinker will suffer a withdrawal syndrome, but, for most who do, it is unpleasant

Onset—3-6 hours after last drink

Duration—5-7 days

Common withdrawal symptoms—Headache, nausea, vomiting, sweating and tremor Generalised (grand mal) convulsions may occur during withdrawal

Delirium tremens

This occurs in about 5% of those suffering from alcohol withdrawal

Onset—48-72 hours or more after last drink

Features—The characteristic symptoms of delirium (agitation, confusion, visual and auditory hallucinations, and paranoia) plus the marked tremor of alcohol withdrawal

Complications—Delirium tremens is serious because of associated complications: fits, hyperthermia, dehydration, electrolyte imbalance, shock and chest infection

Prognosis—In hospital practice the mortality is high, about 10%

Chlormethiazole is no longer recommended as attenuation therapy, particularly in general practice, because of the high risk of dependence and the lethal cocktail that results if it is taken with alcohol

Local services

As well as mental health services, many local voluntary agencies and self help groups, such as Alcoholics Anonymous and Al-Anon, can provide much needed advice and support for patients and their families. Most voluntary agencies prefer patients to make contact directly. Details may be found in the telephone directory or *Yellow Pages*

National helplines

- DrinkLine (National Alcohol Helpline) 0345 320 202
- Sick Doctors' Trust (helpline for addicted physicians) 01252 345 163

Further reading

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