

Alcohol misuse: diagnosis and management

Introduction

Alcohol misuse is associated with a significant mortality and morbidity. Over 5000 people die each year of direct alcohol related deaths (Office of National Statistics, 2003). The cost to the NHS is estimated to be £3 billion a year (Royal College of Physicians, 2001). Around 29% of men and 17% of women drink more than the recommended limits (Office of National Statistics, 2001). Rates of dependency are estimated at 7.5% for men and 2% for women over the last 12 months (Office of Population Census and Surveys, 1996).

Definitions

- Sensible drinking is defined as 21 units for men and 14 units for women per week
- Hazardous drinking is the regular consumption of more than 5 units for men

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and 3 units for women each day. It is associated with an increased risk of physical complications (e.g. liver disease, hypertension, some cancers)

- Harmful drinking is a pattern of drinking that is causing damage to physical and mental health (*International Classification of Diseases (ICD-10)*; World Health Organization, 1992).
- Alcohol dependency – see *Table 1* for ICD-10 criteria
- Binge drinking: drinking over 10 units for men and 7 units for women in one session.

Taking an alcohol history

Clinicians often overlook the drinking history because they are too busy, or may feel that they do not have the necessary training. Individuals with alcohol problems are often perceived as difficult or time consuming. Taking an alcohol history provides an opportunity to establish a therapeutic relationship with the patient and may even be beneficial in itself. Patients may present with a request for help to cut down on their drinking, or may present with medical, psychiatric or social complications (*Table 2*).

Suspicion of alcohol problems should be raised when a patient frequently requests sick notes or presents with conditions that could be related to drinking (e.g. gastritis, hypertension). Opportunistic detection is

Table 1. Diagnosis of alcohol dependence – ICD-10 criteria

Three or more of the following should have occurred together for at least 1 month, or should have occurred repeatedly over the last 12 months

A strong desire or sense of compulsion to drink

Difficulty in controlling drinking in terms of its onset, termination or level of use

A physiological withdrawal state (e.g. tremor, sweating, tachycardia, anxiety, insomnia) when use is reduced or stopped, or drinking to avoid a withdrawal state

Evidence of tolerance – increased amounts of alcohol are required to produce the same effects

Progressive neglect of other interests or pleasures because of drinking and increased amounts of time required to obtain or take alcohol, or to recover from its effects

Persistent use despite clear awareness of its harmful effects

From World Health Organization (1992). ICD-10 = International Classification of Diseases (10th edition)

Table 2. Complications resulting from harmful drinking or dependency

| | | |
|------------------------------|------------------------------|---------------------------------------|
| Physical | Gastrointestinal disorders | Peptic ulceration |
| | | Mallory–Weiss tear |
| | | Pancreatitis |
| | Cardiovascular | Alcoholic liver disease and cirrhosis |
| | | Arrhythmias |
| | | Hypertension |
| | | Cerebrovascular disease |
| | | Cardiomyopathy |
| | Metabolic | Ischaemic heart disease |
| | Metabolic | Hypoglycaemia |
| | Neurological | Seizures |
| | | Falls |
| | | Cerebellar degeneration |
| | | Neuropathy |
| Central pontine myelinolysis | | |
| Skin problems | Acne rosacea | |
| | Psoriasis | |
| Sexual problems | Infertility | |
| | Impotence and low libido | |
| Neuro-psychiatric | Delirium tremens | |
| | Alcoholic hallucinosis | |
| | Wernicke–Korsakoff syndrome | |
| | Alcoholic dementia | |
| | Depression | |
| | Self harm/suicide | |
| | Anxiety and panic disorders | |
| Morbid jealousy | | |
| Social | Marital disharmony | |
| | Domestic violence | |
| | Criminal behaviour | |
| | Neglect of children | |
| | Financial problems | |
| | Absenteeism from work | |
| | Impaired performance at work | |

also important, particularly in primary care (e.g. when an individual presents for a health check). Alcohol is commonly comorbid with many psychiatric disorders such as depression, obsessive-compulsive disorder and post-traumatic disorder.

Individuals are often defensive about their drinking, and therefore an open question (e.g. what do you think is your main problem? or why have you presented today?) may be more appropriate to begin with. There are a number of screening instruments which are available and can increase the rate of detection of alcohol problems:

- CAGE (cut down, angry, guilt, eye opener) questionnaire (*Table 3*) is easy to administer and has a sensitivity of 93% and a specificity of 75%. The questionnaire may not pick up those with less severe drinking problems
- The alcohol use disorders identification test (AUDIT) questionnaire (*Figure 1*) has been developed for use by primary care workers and has a sensitivity of 92% and specificity of 93%.

If alcohol misuse is suspected, the history should focus on the development and evolution of drinking and current usage.

Current level of intake

The type of beverage and the number of units per week (1 unit equals 8–10 g of alcohol, which equals half a pint of beer, 1 glass of wine, or 1 measure of spirits) should be determined. Enquire about consumption on a recent typical day. Does the person prefer to drink alone or in the company of others?

Table 3. CAGE screening tool

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|--|
| Do you feel that you should Cut down on your drinking? |
| Do you get Annoyed when people criticize your drinking? |
| Do you feel Guilty? |
| Do you have a drink first thing in the morning to calm the nerves (Eye opener)? |
| <small>'yes' to 2 or more is suggestive of probable alcohol dependence. From Mayfield et al (1974)</small> |

Figure 1. The alcohol use disorders identification test (AUDIT). From Piccinelli et al (1997).

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| 1. How often do you have a drink? 0 = never, 1 = monthly or less, 2 = 2–4 times a month, 3 = 2–3 times a week, 4 = 4 or more times a week |
| 2. How many alcoholic drinks do you have on a typical day when you are drinking? 0 = 1 or 2, 1 = 3 or more, 2 = 5 or 6, 3 = 7–9, 4 = 10 or more |
| 3. How often do you have 6 or more drinks in one occasion? 0 = never, 1 = less than monthly, 2 = monthly, 3 = weekly, 4 = daily or almost daily |
| 4. How often over the past year did you find that you were not able to stop drinking once you started? 0 = never, 1 = less than monthly, 2 = monthly, 3 = weekly, 4 = daily or almost daily |
| 5. How often in the past year have you failed to do what was expected of you because of drinking? 0 = never, 1 = less than monthly, 2 = monthly, 3 = weekly, 4 = daily or almost daily |
| 6. How often in the past year have you needed a drink first thing in the morning to get yourself going after a heavy drinking session? 0 = never, 1 = less than monthly, 2 = monthly, 3 = weekly, 4 = daily or almost daily |
| 7. How often in the past year have you had a feeling of guilt or remorse after drinking? 0 = never, 1 = less than monthly, 2 = monthly, 3 = weekly, 4 = daily or almost daily |
| 8. How often in the past year have you been unable to remember what happened the night before because you had been drinking? 0 = never, 1 = less than monthly, 2 = monthly, 3 = weekly, 4 = daily or almost daily |
| 9. Have you or someone else been injured as a result of your drinking? 0 = never, 1 = less than monthly, 2 = monthly, 3 = weekly, 4 = daily or almost daily |
| 10. Has a relative, friend, doctor or other health worker been concerned about your drinking or suggested that you cut down? 0 = no, 1 = yes but not in the past year, 2 = yes, during the past year |
| <small>A score of 8 in men or 7 in women indicates hazardous or harmful use, a score of 13 suggests significant alcohol-related harm or dependency</small> |

Age

Determine the age when the patient had his/her first drink, started regular weekend drinking, regular evening drinking, lunch-time drinking and early morning drinking. Ascertain consumption at each stage and the type of beverage. This will give an indication of any narrowing of repertoire of drinking (loss of variation in pattern of intake).

Symptoms of dependency

Are there any symptoms of dependence, symptoms of withdrawal on waking, drinking to avoid withdrawal symptoms (relief drinking), neglect of alternative interests or activities, difficulty controlling consumption of alcohol and compulsion to drink (Table 1)?

History

Family history

Take the family history of alcohol problems, suicide and other mental illness, criminality and violence.

Personal history

Ask about issues such as childhood sexual abuse, marital problems (separation, divorce), domestic violence and difficulties with children.

Current occupation

Does the individual work with alcohol or have easy access to alcohol? Has his/her performance at work declined? Note frequent absences from work, accidents, or dismissal from work?

Forensic history

Does the patient have any previous convictions for drink driving, being drunk and disorderly, history of violence or shop lifting?

Past psychiatric history

Have there been any episodes of depression, anxiety, suicide, drug misuse, or morbid jealousy (e.g. belief that his/her partner is being unfaithful)?

Medical history

Enquire in depth about alcohol-related physical problems such as gastrointestinal symptoms, head injury, withdrawal seizures, delirium tremens (DTs), and blackouts.

Previous treatments

Has there been any inpatient or outpatient detoxifications or residential rehabilitation? What is the length of the abstinent period and what are the reasons for relapse? Has the patient been to any self-help groups such as Alcoholics Anonymous (AA) or psychological therapies?

Social history

Are there any problems with housing or keeping up with rent payment? Are there any problems with neighbours?

Premorbid personality

Ask about what the person was like before he/she became unwell. Certain personality disorders are associated with alcohol misuse such as dissocial personality disorder and borderline personality disorder.

Mental state examination

- Appearance and behaviour – look for features of alcohol withdrawal or intoxication and signs of self neglect and weight loss
- Speech – may be slurred in alcohol intoxication
- Mood – ask about depressive symptoms and anxiety
- Thought content – enquire about suicidal thoughts, phobias, obsessions and delusions (e.g. morbid jealousy)
- Perceptions – are there any auditory, visual or tactile hallucinations, which may occur in DTs or alcoholic hallucinosis (see below)
- Cognition – is there a deficit in the mini mental state examination, which could indicate alcoholic dementia or Korsakoff syndrome (see below)?
- Insight – does the individual believe that their drinking is a problem? Is the person seeking and willing to accept help?

A full physical examination should be conducted to assess for alcohol-related physical problems (e.g. signs of liver disease).

Investigations

Blood alcohol levels may be useful in the intoxicated patient (or a breathalyser may be used). Full blood count may reveal a raised mean corpuscular volume, which occurs in 60% of patients.

Liver function tests may reveal a raised gamma glutamyl transferase (GGT) level. This has a sensitivity of 50%, however, it

may be raised after one heavy drinking session. Further investigations may be required to detect and treat alcohol-related conditions, e.g. abdominal ultrasound scan if liver is enlarged.

Specific alcohol-related problems

Withdrawal from alcohol

Symptoms include tremor, sweating, tachycardia, nausea, anxiety and insomnia. There is a risk of seizures 48 hours after withdrawal in 5–15% of alcohol-dependent patients. Treatment for alcohol withdrawal usually stops the seizures but anticonvulsants may be required.

Delirium tremens

This is a toxic confusional state that is fatal in 10% of people. It occurs in severely dependent people 3–4 days after withdrawal. Symptoms include clouding of consciousness, psychomotor agitation, fear, insomnia, delusions and hallucinations. It may be associated with dehydration, electrolyte imbalance and infection, which should be treated as well as withdrawal symptoms.

Wernicke–Korsakoff syndrome

Wernicke's encephalopathy and Korsakoff syndrome represent the acute and chronic phases of the same disease process and are caused by thiamine deficiency. Wernicke's encephalopathy is characterized by ataxia, nystagmus, ophthalmoplegia and peripheral neuropathy. There is a mortality of 20% and 80% of survivors develop Korsakoff syndrome, which is associated with impaired memory and new learning. Other cognitive functions remain intact. Confabulation (falsification of memory in clear consciousness) may occur in the early stages.

Alcoholic hallucinosis

This is a rare disorder characterized by auditory hallucinations in clear consciousness. It may occur following abstinence or in people who are continuing to drink. Most cases do not persist for more than 6 months. The differential diagnosis includes schizophrenia and DTs.

Management

Management depends on the severity of dependency and alcohol-related problems. Referral to specialist community services may be required and any associated co-

morbid psychiatric problems, such as depression, should be treated. It is also important to enlist the support of family and friends.

Minimal intervention

Minimal intervention is suitable for individuals who drink excessively but do not have any physical or mental health problems. It involves an assessment of alcohol intake followed by a few minutes of information on sensible drinking and the harmful effects of drinking excessively. Advice and encouragement should be provided. A brief assessment of alcohol intake, followed by a few minutes of advice and the provision of an information booklet, has been shown to be effective in reducing alcohol consumption by approximately 25% (Wright et al, 2003).

Brief interventions

Brief interventions are a collection of planned and structured interventions, which are suitable for people with definite alcohol-related problems but only minor degrees of dependency.

The FRAMES approach may be used to deliver brief counselling interventions, and can be used in primary care (Figure 2).

Motivational interviewing is commonly used. It addresses ambivalence about changing alcohol use and behaviour and attempts to enhance motivation. It helps the individual move through a cycle of change from pre-contemplation to contemplation. Studies have consistently found brief interventions to be as effective in reducing alcohol consumption as more intensive treatments (Bien et al, 1993).

Intensive treatments

Intensive treatments are suitable for people with severe dependency. For individuals wishing to give up drinking, detoxification can be completed at home and is usually safe and effective. Inpatient detoxification

should be considered for people with: a past history of withdrawal seizures or epilepsy, previous failed home detoxifications, increased risk of suicide, acute physical or psychiatric illness, multiple substance use, and lack of support at home.

A reducing regimen of chlordiazepoxide is usually used to reduce the symptoms of withdrawal and decrease the risk of seizures and DT. The doses should be titrated according to the severity of withdrawal symptoms. A starting dose of 40 mg four times a day is often used in the inpatient setting. All patients should be given parenteral thiamine to reduce the risk of Wernicke's encephalopathy.

Maintaining abstinence

Psychosocial interventions such as cognitive behavioural therapy and relapse prevention are useful. Coping and social skills training, marital and family therapy and motivational interviewing, may reduce risk of relapse. Self-help groups such as AA are also useful.

Pharmacological interventions should not be used alone but should complement the above treatments. These include disulfiram, acamprostate and naltrexone. When alcohol is consumed with disulfiram it causes an unpleasant reaction (tachycardia, headache, nausea, vomiting), therefore the aim is to deter the person from drinking alcohol. It should be initiated in hospital or in specialist clinics and its use should be supervised. Patients need to be informed about the dangers of drinking alcohol with it. Acamprostate is thought to reduce the craving for alcohol. It is currently licensed for use up to 1 year. Evidence suggests that naltrexone increases the rates of abstinence and decreases the rates of relapse.

Conclusions

Alcohol misuse is a common and serious problem. Screening for alcohol misuse is important as it remains largely under diag-

nosed. Useful and simple screening tests are available, which can increase detection rates and only take a few minutes to complete. There are effective treatments and early identification can prevent physical and psychosocial problems. **BJHM**

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Figure 2. The FRAMES approach.

F = feed back about the patient's risk
 R = responsibility ('only you can make the decision to stop drinking')
 A = advice ('I recommend that you stop drinking for 2 weeks to see if that makes a difference')
 M = menu of options ('if that is too difficult, we can consider other options such as the AA')
 E = empathy ('I know that this will be hard')
 S = self efficacy ('considering how difficult you are finding this, I'm impressed by your willingness to consider change')

KEY POINTS

- Taking an alcohol history is an essential part of history taking and can help establish rapport
- Alcohol abuse can present with medical, psychological and social complications
- Screening tools such as the CAGE are quick to use, easy to remember and can help detect alcohol problems
- Simple interventions such as providing education about the harmful effects of drinking and simple advice can be helpful to many patients.