MANAGEMENT OF ALCOHOL DEPENDENCE

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The term 'alcoholic' is still used as medical shorthand, but it can frighten patients away, create an argument - 'I'm just a heavy social drinker' - or allow a digression about definitions. It is hard to be rid of stigma - the term 'alcoholic' still conjures up stereotypes of the deteriorated city centre homeless. So avoid it! The core issue is that there are some people whose drinking repeatedly causes problems to themselves or others (to health, their family or friends, at work, or with the law), and who cannot or will not alter their drinking.

DEPENDENCE

Some find it difficult to change their drinking habit because it is deeply ingrained and/or because their efforts are thwarted by the discomfort of withdrawal. The term 'dependence' is then used. Drinkers liable to withdrawal symptoms are those who have a high tolerance to alcohol (i.e. look sober at a high blood alcohol level), have morning tremor, nausea or 'dry heaves', take a 'relief drink' before noon, or on examination have a trembling tongue or hands. They may have periods of abstinence but, when they drink, they cannot predictably control the amount.

DETECTION

In common with other disorders associated with stigma and shame, patients may hide or deny relevant information. In addition they may not wish to concede the relevance of advice to stop doing something they enjoy or depend on.

Of a number of screening tests, CAGE is popular because it comprises only four questions:

CAGE

- **Do you have difficulty Cutting down?**
- **Are you Angry because someone criticised your drinking?**
- **Do you feel Guilty about drinking?**
- **Do you take an Eye-opener? (A morning drink to relieve withdrawal symptoms.)**

However, CAGE misses many cases in medical or surgical units and emergency departments, and is not designed to pick up early cases of dependency. AUDIT, developed by WHO, consists of ten questions[1,2] and functions better.

Essentially, however, a doctor should ask about: quantity and pattern of drinking, whether there are problems, and whether there are symptoms of dependence.

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Taking a drinking history

- **How often do you take a drink? (In the elderly also ask about spirits added to tea or coffee.)**
- **What do you drink on a typical day? (1 unit = half pint beer, 1 glass wine, 1 measure of spirits, 10 g of alcohol.)**
- **Have there been any days in the past month when you had over 10 units?**
- **Have you had any problems from drinking in the past year - at home, at work, with the law, or with your health?**
- **Have you or anyone else been injured by your drinking?**
- **Have you used alcohol to help with your problems?**

If answers reveal hazardous levels or harm from drinking, assess whether or not the person is currently dependent as follows:

- **difficulty controlling the amount drunk?**
- **difficulty cutting down?**
- **withdrawal symptoms?**
- **drinking to control withdrawal symptoms?**

BIOLOGICAL MARKERS

About 60% of people drinking at potentially harmful levels (for men >80 g/day) will have an elevation of either mean red cell volume (MCV) or serum gamma glutamyl transferase (GGT). Thus, in samples of people ready to be frank about their drinking, these markers miss many cases. But they are useful, so long as elevations due to medication or other physical disorders are borne in mind, in those who are not prepared to be frank.

Alcohol interferes with the carbohydrate moiety of transferrin. Serum carbohydrate-deficient transferrin is a marker of heavy drinking which is slightly less sensitive than GGT being elevated in 50-60% of those drinking 56 units/week. It is not affected by any known drugs or common medical disorders, therefore its specificity as a marker of heavy drinking in medical populations is greater than GGT or MCV. Because total serum transferrin concentration is altered in some liver disorders, the most accurate measure is the %CDT - the percentage of transferrin that is deficient in carbohydrate. The %CDT is a more valuable marker for drinking than GGT or MCV in patients with liver disease, although high levels of CDT and %CDT can be found in primary biliary cirrhosis and hepatocellular carcinoma.[3]

Medical pointers to alcohol-use disorders

Early history:
- **insomnia: (if drinking regularly in the evening, on a night without alcohol there may be difficulty getting off to sleep; others experience waking in the small hours due to a rebound wakefulness, as their bedtime dose of alcohol wears off),**
- **gastritis symptoms,**
- **hypertension,**
- **falls/injuries.**

On examination: smell of alcohol on the breath.

Later history:
- **anxiety: regular drinkers move in and out of minor withdrawal states,**
- **palpitations: caused by alcohol withdrawal or by alcohol-induced arrhythmias,**
- **depression; relationships are disturbed; alcohol interferes with coping at work; alcohol may be acting pharmacologically as a depressant despite the patient still experiencing the initial euphoria after the first two or three drinks,**
- **family stress.**

On examination: alcohol on the breath, tremor (which can be seen in the tongue and mouth before it is visible in the fingers), sweating, tachycardia, conjunctival injection, excessive capillarisation of the facial skin, liver enlargement, injuries.

ALWAYS CONSIDER ALCOHOL IN THE DIFFERENTIAL DIAGNOSIS OF CLINICAL COMPLAINTS!

WHICH DRINKERS ARE AT RISK?

Some drinkers are neither dependent, nor have had problems, and yet are drinking at a level which, statistically, puts them at risk. The interpretation of the epidemiological data is argued, and individual susceptibility varies, but drinking above 4 units per day (for females 3 units per day) is the point at which risk begins to rise of death or illness from liver disease, stroke, and cancer of the oropharynx, larynx, oesophagus and breast.[4] Of course, those drinking their 28 units/week in one or two sessions are at risk of a different constellation of problems such as haematemesis, 'non-coronary chest pain', injuries or trouble with the police.

The heart disease exception

For the middle-aged patient with a family history of coronary heart disease (CHD) and other CHD risk factors, there is strong epidemiological evidence of the association of better health and drinking 1-3 units per day. The association still exists and is probably causal after excluding from the analysis abstainers who have stopped drinking because they were already ill, and adjusting for social class, income, diet (in many if not all studies), exercise, and smoking.[5]

DETECTION MERGES INTO INTERVENTION

History-taking from alcoholic patients should move naturally into helping the patient understand the links between symptoms or signs, and their pattern of drinking. The first stage of treatment is non-judgmental, objective dialogue in which the patient weighs up the pros and cons of the drinking. He or she may not yet be ready to consider a change, in which case, just leave the door open. Even if motivated at one point, this resolve will fluctuate, and change will be stepwise. Ideas may be planted which may have an effect months later.

WHAT IS 'MOTIVATION'?

The motivational state is the balance of the 'pay-offs', as the patient perceives them, of change. There will be advantages and disadvantages of stopping or reducing the drinking, and some advantages and disadvantages of carrying on. For example, he may be happy not to vomit blood again, not to have nausea in the mornings, to save money, and to please his family by stopping drinking. On the other hand, he will miss the company in the bar or public house, and the help he believes he gets from alcohol with his tension and anxiety. But the balance of the pay-offs may change. For example, with your explanation he may begin to realise that tension which he has attributed to his work or his marriage is actually being caused by the rebound hyperexcitability of his nervous system as he moves into and out of a withdrawal state.

ENHANCING MOTIVATION: THE INTERVIEW[6]

Dialogue is a clinical tool. Here are some suggestions on the dialogue with patients who are drinkers:

- *Start where the patient is*: 'What is your chief concern at present?'
- *The pros and cons:* 'Where does your drinking fit in?'...'Has your drinking played a part in what has happened/in how you are feeling?' 'What are the good things about your drinking?' 'What are the less good aspects of your drinking?'
- *Provide information about the biology and pathology of drinking:* but do not say: *'You* are...and if *you* are not careful, *you* will....' (Such statements risk pushing patients into a corner, from which they have no choice except to agree with you - or pretend to - or disagree, even argue.)
- *If the patient is defensive, ask permission:* 'Would you be interested in knowing more about the effect of alcohol on...?'
- *Make information less personal:* 'What alcohol does in some people is....' 'Medical research has shown that....'
- *Help patients express for themselves their own concerns:* 'What concerns you about your drinking?' 'What else concerns you at present?'
- *Help with decisions:* Present options rather than a single course of action, e.g. 'There are two ways of tackling this - cutting down is one way, or stopping completely on the basis of one day at a time.' Describe what other patients have done in similar situations.
- *Emphasise:* 'You are the best judge of what is right for you.'
- *Leave doors open:* Failure to make a decision to change there and then is not a failed consultation. Resolutions to change often break down - make it easy for the

patient to renew contact. (Commitment to change may fluctuate.)

The spirit of this style of interviewing should be: *people believe what they hear themselves say, more than what they hear others tell them!*

ENHANCING MOTIVATION: THE SOCIAL MATRIX

It is often said quite correctly that the only successful way for patients to change their drinking is to be doing it for themselves. Nevertheless, research as well as experience shows that even dependent drinkers will start on the road to recovery when there is pressure from an outside source. This may be unequivocal advice from a doctor, or a requirement of a Court. Perhaps the spouse or partner is taking a firm line, even ready to separate. Perhaps the employer has given a warning.

Sometimes the doctor can help by improving communication between parties so that messages are clear. It is usually not harmful for the employer or spouse to state: 'We value our relationship to you. But your drinking is harming that relationship and we will not tolerate it.' If a doctor is asked by a spouse, or an employer, to comment on the patient's condition, he may or may not have the patient's permission, or feel it appropriate, to do so. But the doctor can usefully advise the spouse or the employer to give a clear message, firm but positive if possible, to the patient.

Friends, partners, colleagues at work and employers may take an approach they believe to be helpful but which has the opposite effect, and which enables the drinker to continue drinking. They may cover up, gloss over, make excuses and even start blaming themselves for what is happening. Sometimes doctors unwittingly collude too in a cover-up. The smokescreen that can be created by a drinker who is severely dependent and ambivalent about change is hard to penetrate, and the doctor may need to be clinically astute. 'It's depression, doctor.' 'I have memory blanks due to my migraine.' 'If only there was less stress at work...my wife was more understanding...my sleep was not disturbed....'

The physician may need to wait for that medical moment, perhaps a crisis, to get the help into place. Or if the doctor is prepared to be patient, the drip, drip of non-judgmental evidence, plus some social pressure, may bring about an incremental change in understanding and thus the perceived motivational pay-offs in the patient. Understanding may lead to action. However, that action may not be sustained, and the procedure may need repeating.

VERY BRIEF MEDICAL ADVICE LEADS SOME NON-DEPENDENT DRINKERS TO CUT DOWN

Using the serum GGT as a screening test, large-scale population screening studies in Scandinavia have shown the benefits of very minimal physician's intervention.[7,8] People with an elevated GGT were reassessed to exclude the reasons for the elevation other than alcohol. Random allocation to control (nothing else said) versus authoritative, non-judgmental, brief advice to reduce drinking showed that such brief intervention could lead to individuals reducing their drinking towards safer levels.

The brief intervention is epitomised in the acronym 'FRAMES':

'FRAMES' - Giving brief medical advice[9]

- **Feedback about personal risk or impairment.**
- **Responsibility - emphasis on personal responsibility for change.**
- **Advise cutting down, or abstinence if physical damage or severe dependence.**
- **Menu of alternative options for changing drinking.**
- **Empathic interviewing.**

The benefits from brief intervention have been demonstrated in falling GGT levels, future duration and frequency of hospitalisation, and days on sickness benefit.[7] Benefits of intervention, when screening has been based only on interview or questionnaire, have also been shown in general medical wards[10] and in primary care.[11,12] There is one important caveat: *severely-dependent patients were excluded at the outset in these studies; there is no evidence that those patients respond to brief advice*.[13]

ELECTIVE DETOXIFICATION

Dependent drinkers who experience withdrawal symptoms may manage to reduce their drinking in very gradual steps. If they have tried to reduce and failed, and withdrawal symptoms promise to be severe, benzodiazepines are indicated. This is predicted if recent consumption was more than 15 units/day for more than ten days, or if the patient has tried before but anxiety, insomnia, nausea, or tremor in the withdrawal phase were too severe and drinking was resumed.

A typical pre-fixed out-patient regimen is chlordiazepoxide 20-30 mg q.i.d., reducing to nil over five days, giving the larger doses at night (Table 1). Medication

TABLE 1
Example of a fixed dose regimen for out-patient alcohol withdrawal using capsules of chlordiazepoxide (10 mg).

	7 am	12 noon	6 pm	11 pm	TOTAL
Day 1	-	3	3	3	9
Day 2	2	2	2	3	9
Day 3	1	1	1	2	5
Day 4	-	1	-	2	3
Day 5	-	-	-	1	1

is issued on the understanding that the patient does not also take alcohol. If there is doubt that this instruction will be followed, medication is issued daily and a check made that drinking has not been resumed by breath, urine or blood analysis. Chlordiazepoxide is preferred to diazepam for outpatients because it has a slower onset of action, and therefore little or no re-sale value on the street.

Admission to hospital is indicated when the home-social milieu is inimical to drying out, when there is a history of withdrawal convulsions or delirium, and is urgent when signs of incipient Wernicke's syndrome (ataxia, strabismus and/or nystagmus, confusion) indicate the need for immediate parenteral thiamine.

Advice to patient on withdrawing from alcohol at home

- **If you have been chemically dependent on alcohol, stopping drinking causes you to get tense, edgy, perhaps shaky or sweaty, and unable to sleep. There can be vomiting or diarrhoea. This 'rebound' of the nervous system can be severe. Medication controls the symptoms while the body adjusts to being without alcohol. This usually takes three to seven days from the time of your last alcoholic drink. If you didn't take medication, the symptoms would be worst in the first 48 hours, and then gradually disappear. This is why the dose starts high and then reduces.**
- **<u>You have agreed not to drink alcohol.</u> You may get thirsty. Drink fruit juices and water but do not overdo it. You do not have to 'flush' alcohol out of the body. More than three litres of fluid could be too much. Don't drink more than three cups of coffee or five cups of tea. These contain caffeine which disturbs sleep and causes nervousness.**
- **<u>Aim to avoid stress.</u> The important task is not to give in to the urge to take alcohol. Help yourself relax by going for a walk, listening to music, or taking a bath.**
- **<u>Sleep.</u> You may find that even with the capsules, or as they are reduced, your sleep is disturbed. You need not worry about this - lack of sleep does not seriously harm you, starting to drink again does. Your sleep pattern will return to normal in a month or so. It is better not to take sleeping pills so that your natural sleep rhythm returns. Try going to bed later. Take a bedtime snack or milky drink.**
- **The capsules may make you drowsy so you must not drive or operate machinery. If you get drowsy, miss out a dose.**
- **<u>Meals.</u> Even when you are not hungry, try to eat something. Your appetite will return.**

PREVENTING AND TREATING ALCOHOL WITHDRAWAL IN THE GENERAL HOSPITAL

Dependent drinkers admitted to hospital may go into alcohol withdrawal. If benzodiazepines are not started promptly, convulsions, or delirium tremors with paranoid behaviour, may develop and can be difficult to manage. This is one reason why taking a drinking history from newly-admitted patients (and/or a relative) is mandatory. Diazepam (10-20 mg) is given two-hourly until agitation, tremor, sweating and tachycardia are controlled (maximum 160 mg in 24 hours). This is called 'symptom-triggered dosing'. There is no need to wait until any alcohol present in the body has been metabolised - withdrawal symptoms develop in the severely dependent patient when the blood alcohol level starts to fall and before it has reached zero. Bursts of withdrawal seizures can, rarely, be fatal. Intravenous or rectal diazepam should be given for rapid action.

When medication is not started until 24 hours after the last drink in a severely dependent patient, as sometimes has happened in medical and surgical settings, large and frequent doses of benzodiazepines will be needed, titrating sedation against agitation. Up to 100 mg diazepam may be required in the first 24 hours. The total amount prescribed in symptom-triggered dosing tends to be less than when a fixed dose regimen is used and avoids over-sedation on day three or four.[14] Shorter-acting benzodiazepines such as oxazepam or lorazepam are preferred in liver failure. If the patient is vomiting, metoclopropamide (10 mg i.m.) is administered 30 minutes before the first benzodiazepine tablet and/or perhaps a benzodiazepine that can be administered parenterally; lorazepam is absorbed adequately from the intramuscular site, starting dose 2-4 mg.

Managing alcohol withdrawal in the general hospital

<u>Prophylactic sedation</u>
Diazepam 10-20 mg orally every two hours up to a maximum of 160 mg in 24 hours, until restlessness, anxiety, tremor, tachycardia and sweating are controlled.

<u>Treatment of acute agitation</u>
Diazepam i.v. 5-10 mg over 1-2 minutes. If i.v. access is not possible, droperidol 10 mg (i.m. is effective in 10-15 minutes).

<u>Vitamins</u>
Parenteral vitamin B if the patient is malnourished, confused, ataxic or shows ocular signs.

<u>Decompensated liver disease</u>
Shorter acting, or lower doses, of benzodiazepine to avoid over-sedation.

MANAGING DELIRIUM TREMENS

A calm well-lit environment with continuous nursing to give explanation and reassurance can reduce agitation.

Sedation may need to be given parenterally, perhaps under restraint. Restraint in this situation does not require a Mental Health Act certificate. If symptoms are not controlled, droperidol 10 mg i.m. or i.v., repeated 4-6 hourly, may be needed. General hospitals are advised to have an on-call emergency team of nurses and porters because uncontrolled delirium tremens (DTs) is dangerous. The keynote, however, should be *prevention by early identification*. Chlormethiazole infusion is effective in DTs but risks respiratory depression. Chlormethiazole should never be continued on discharge because of the risk of misuse, or of respiratory depression due to overdose or when mixed with alcohol.

WERNICKE-KORSAKOV (W-K) SYNDROME - USE OF VITAMINS

Acute illness, or perhaps simply admitting an alcoholic to hospital, can precipitate the W-K syndrome, which can be fatal, or can leave the patient with permanently disabling recent memory impairment. It is related to acute thiamine deficiency. The stress of alcohol withdrawal or of the current medical problem, or taking a first meal for some weeks, or the use of dextrose infusion may explain why sudden acute thiamine deficiency occurs. Because heavy drinkers have impaired absorption of oral thiamine, immediate parenteral thiamine (e.g. 'Pabrinex') is required.[15] Ataxia and confusion on admission can easily be attributed to drunkenness, and the W-K syndrome missed. Ophthalmoplegia and nystagmus are not necessary to make the diagnosis. It may be worth recalling that there have been recent medical negligence claims relating to missed diagnosis of acute W-K syndrome.

Patients without signs of W-K syndrome are usually simply started on a course of oral thiamine (if they are not severely physically ill and have no signs of malnutrition). Since there is a ceiling on how much oral thiamine can be absorbed per day, 50 mg b.d. is probably sufficient.

Triad of Wernicke-Korsakov (the triad need not be present):[16]

- **nystagmus**
- **opthalmoplegia**
- **ataxia and confusion**

Patients with post-mortem W-K changes, in life showed:

- **the triad 10%**
- **ataxia 23%**
- **ocular signs 29%**
- **confusion 82%**

ABSTINENCE OR 'SOCIAL DRINKING'?

Early problem drinkers who are not severely dependent can sometimes resume problem-free drinking. Patients with family and occupational supports, and without impulsive personalities, are those most likely to succeed as 'social drinkers'. A method of monitoring amount and pattern, such as a diary card and/or serial serum GGT measurements, should be agreed. For others, aiming for abstinence is the *only* strategy which results in freedom from further problems.

When is 'controlled' drinking a viable goal?

- **the problem is newly detected**
- **no/minimal signs of dependence e.g. morning drinking to reduce tremor**
- **no major medical complications**
- **no psychiatric illness**
- **no impulsive traits**
- **socially stable**
- **good compliance with treatment**
- **no previously failed experiments**
- **patient has clear preference for 'controlled drinking' over abstinence**
- **partner agrees with non-abstinent goal**

Principles in counselling for 'controlled drinking'

- **Agreeing limits on the number of drinks on any occasion, and number of days abstinent.**
- **Keeping a record of what is drunk - a drinking diary.**
- **Slowing the rate of drinking, and/or reducing the alcoholic strength of drinks.**
- **Developing assertiveness skills for refusing drinks.**
- **Help patient design a reward system when goals are achieved.**
- **Develop awareness of triggers to overdrinking.**
- **Practising other ways of coping with triggers.**

HELPING WOMEN WITH ALCOHOL-RELATED PROBLEMS

It has been said that when a woman has an alcohol problem, there is a drinking man somewhere in her life - usually either her partner, or her father. When the partner also drinks heavily, a joint approach is needed, if he can be involved. Husbands are sometimes *very* involved. He may have slipped into a controlling role, perhaps understandably if the wife has been unreliable with the children, money, the car, etc., but her resentment at his taking control can fuel the drinking. The doctor can help the wife understand how this has come about, accept that it can take weeks or months for trust to return, and not over-react when she sees her partner yet again checking up on her even though she has been abstinent for several weeks.

Low self-esteem is very common in such women. Even if they were confident before the drinking got out of hand, they may by now have lost that. The partner, while still being firm about the unacceptability of her drinking, may need help to be more caring and positive, to show interest in what concerns her, and to give appreciation. Resentment towards family, employer, partner, perhaps leading to depression, is common.

LINKING PATIENTS WITH ALCOHOLICS ANONYMOUS (AA)

Randomised controlled studies show that helping patients understand the AA approach, and assisting them to link up with an AA meeting, is as effective as time-consuming

cognitive-behavioural therapy, and for patients who are well adjusted, without psychiatric problems, it may well be superior.[17,18]

There are many ingredients to the healing process of AA. Telling the personal story helps newcomers identify aspects of their problems with those of others, and also ensures that the members do not forget the harm that alcohol caused in their lives. This helps avert complacency, perhaps the commonest cause for relapse. The spiritual attributions ('The Higher Power') are a stumbling block for some newcomers, but they soon find that the emphasis and interpretation of this construct varies among members. Ideally, a physician might have some contacts in AA who are willing to phone the patient who will then be told something about AA. The patient will not be interrogated, but will simply be invited to attend a meeting.

AA does not work for everyone, but it is difficult to predict which patients AA will suit. Impaired control of drinking is probably the hallmark. He or she will be met with kindness, warmth, and healthy down-to-earth advice on coping with emotions and relationships. When the patient likes the AA method, and appreciates its simplicity ('Just don't pick up the first drink'; 'One drink's too many, twenty are not enough'), demands on medical time rapidly diminish, and the benefits are appreciated by all, especially the individual. Doctors are welcome to attend 'open' meetings to see how the process works. There is a number in the local phone directory. 'Al-Anon Family Groups' (also in the phone directory) provide help on survival techniques for family members beleaguered and exhausted by the frustrations of looking after someone dependent on alcohol.

DETERRENT MEDICATION

Disulfiram, if taken regularly in a sufficient dose, causes an unpleasant reaction 15-20 minutes after alcohol enters the body which is due to accumulation of the intermediate metabolite of ethanol, acetaldehyde. The patient flushes, experiences headache, pounding in the chest or head, tightness in breathing, nausea and perhaps vomits. Hypotension occurs and can be dangerous. Minor unwanted effects are drowsiness or headache, and occur in about 10% of patients. Potentially fatal hypersensitive heptic reactions have been described[19] and occur in one in 25,000 patient-years. Most cases have developed in the first three months of treatment. Peripheral neuropathy, reversible if detected early, may develop if higher doses than manufacturer's recommendations are used.[19]

Disulfiram enables the individual to get used to life without alcohol, and allows time for confidence to resume in the family and at work. It is only effective if taken consistently. The randomised controlled studies showing its efficacy have entailed recruiting a supervisor: patients ask their partner, or a nurse or welfare officer at work or at the clinic or a health centre, to see that they take the disulfiram. This can be either daily, or three times a week, as long as the total number of tablets taken per week is sufficient. The product is now available in a dispersible form to take in water so that it can be seen to be swallowed.

It is common to prescribe disulfiram for six months but many patients will ask to continue the drug for much longer. There are sometimes slips when the disulfiram is ceased, even after long periods of abstinence, and many patients keep a supply to use when they feel they are going to be at risk of drinking, for example, a business trip away or a social event. Sometimes an employer is prepared to reinstate an employee, suspended because of an alcohol-related infringement, if it is known that supervised disulfiram is being taken. It is recognised practice to increase the dose of disulfiram if the patient has tested out the alcohol reaction and the reaction has not been severe enough to act as a deterrent. Monitoring for unwanted reactions must continue. Patients may object that it is 'weakness' to take a pill, instead of using willpower. The trouble is that willpower is not always there when most needed. A decision to drink or not still has to be made with the pills, but only once a day.

WHEN DO ANTIDEPRESSANTS HAVE A ROLE?

Depression is common in problem drinkers. It may be a cause or a result of the drinking. Patients may have lost friends, family or work through their drinking, and feel hopeless, guilty or lacking in direction. They may have little appetite because they are drinking instead, and they may have lost energy, stamina and sexual drive due to their chronic drinking which lowers serum testosterone. They may wake in the small hours of the night feeling anxious due to the rebound wakefulness of alcohol withdrawal.

However, the signs and symptoms of the depressive illness commonly resolve very rapidly with abstinence. Finding ways to tackle or cope with some of the problems that exist, and establishing relationships on a better footing, will also improve mood. But if more help is needed, antidepressants should be tried for a period of at least six weeks. Slightly higher blood levels of antidepressants may result if taken concurrently with disulfiram. Those anxious patients who have become dependent on alcohol are susceptible to the nausea and/or agitation which can occur with the useful SSRI group of antidepressants. Patients may need an anti-emetic, such as metoclopramide, for a few days, and a slightly longer time on their reducing benzodiazepine regimen.

NEW ADVANCES

It is now generally accepted that there is a genetic as well as an environmental contribution to explain why alcohol problems run in families. This has stimulated research into the neurobiology of alcohol dependence. The neurotransmitter systems involved in reward, repetitive behaviours, and drug-seeking are being unravelled.[20]

The gamma-aminobutyric acid (GABA)/glutamate transmission system is excessively reactive during the weeks after detoxification, and probably contributes to emotional vulnerability and relapse. The compound acamprosate has been shown in several large randomised controlled studies to reduce this oversensitivity by antagonising the N-methyl-D-aspartate (NMDA) receptors. Its main value is in the two to three months immediately following detoxification in very heavy drinkers.[21]

In the United States, Canada, and much of Europe, the opiate antagonist naltrexone has also been licensed for the treatment of alcohol dependence.[22] This interrupts the cerebral endogenous opiate transmitters, endorphins, unlinking some of the reward/memory paths which play a part in relapse.

These two drugs are free of abuse potential, and neither is addictive in the sense that there is a withdrawal syndrome. Both have a good safety record. Neither has been tested as a stand-alone treatment: they should be combined with counselling and motivational enhancement. They can only be expected to augment to a modest degree the recovery achievable with conventional therapy.

COMMUNITY FACILITIES

Most areas have an Alcohol Advice Centre, or Council on Alcohol, where trained lay counsellors offer individualised help to problem drinkers and their families. Residential treatment centres run by local authority or voluntary organisations are useful for those whose social situation is unsupportive or who are homeless.

SPECIALIST HELP

The research literature has not supported the long-term benefits of in-patient over out-patient treatment for alcohol dependence: the emphasis in the NHS is towards out-patient care. Private clinics offer an expensive, intensive, residential help based on the 'Minnesota Model'. This has only once been subjected to evaluation by randomised control trial.[23] The result showed a slight advantage to the Minnesota clinic over a less intensive psychiatrically-based in-patient programme. The group culture in these clinics entails considerable confrontation and pressure to accept the illness diagnosis of 'being an alcoholic'. Some of the staff in these clinics are recovering alcoholics and on the whole this is a strength. It is possible that the most valuable feature of these clinics is 'converting' some patients to the AA view and starting the routine of attending AA meetings.

More supported by randomised controlled research are the individual and group treatments based on cognitive-behavioural psychology. As long as patients are sober these can be offered either as in-patient or out-patient treatments. In fact, the Minnesota and AA groups involve much that is similar, but called by a different name. The common factor is *not* looking into the childhood or the unconscious for distant hypothetical causal factors, but practising in the here and now how to cope without drinking.

Coping without drinking

- **Recognise and let go of negative, self-deprecating thinking and resentment.**
- **Avoid 'black and white' thinking. There are usually several ways to view a problem.**
- **Distinguish which of the problems in your life can be tackled and changed, and which have to be accepted.**
- **Learn to put yourself across more strongly, especially when it comes to refusing drinks.**
- **Improve your relationships with others by better communication - listening to others' views and wishes, and putting across your own firmly and constructively.**
- **Develop ways to stay calm when tension builds; recognising anger, that it is normal to feel it, but that you can choose to let go of useless anger.**
- **Recognise and eschew self-pity - the 'poor me's.**

FOLLOW-UP

Invite the spouse or relative to be present at the appointment. Check breath or blood alcohol concentration, look for tremor, and check GGT as part of the clinical routine, *before* asking the patient about drinking; there is nothing to be gained in proving a patient to be a liar. As in other chronic illnesses, relapse is common and reducing damage in a relapse is part of the doctor's role. Patients can learn from relapse; it signals time to try a different strategy.

DRIVING LICENCES

Confusion abounds about correct medical practice regarding known problem drinkers and their driving licences. The European Directive on Driving Licences (1996) makes it clear that alcohol dependence is a disorder meriting disqualification. However, the UK Driving and Vehicle Licensing Agency (DVLA) may allow the licence if abstinence or problem-free drinking is shown to have been stabilised, and once any drink-drive ban has ended. A period of abstinence or freedom from excessive drinking for perhaps as long as three years is required in the case of licences for heavy goods vehicles and passenger vehicles.

The GMC Guidelines on Confidentiality are clear that a doctor may breach confidentiality if he or she believes that there are people at risk because of a patient's drinking and driving, and if the patient has not followed medical advice to inform DVLA or voluntarily stop driving. However, many doctors fear that it will harm the therapeutic relationship if they threaten the driving licence: this dilemma should be addressed on an individual basis. Doctors should instruct the patient that their driving insurance may be invalid if alcohol dependence has been diagnosed but not declared to DVLA.

In the UK drink-driving offenders who have been convicted of two offences in ten years, or one offence when they were over two and a half times the legal limit, or have refused the breath and blood test, are termed 'High Risk Offenders'. Before their licence can be restored, they must undergo a medical assessment involving a report from their GP and blood tests for liver enzymes and MCV.

ATTENDING TO OURSELVES AND OUR COLLEAGUES

Ten-yearly UK comparisons between occupational groups show that for the 1980s doctors had three times the expected rate of deaths from alcoholic cirrhosis, second only to publicans and bar staff.[24] Doctors also have higher than average rates for other alcohol-related deaths including suicide, alcohol-related cancers and accidents.[24] These statistics say nothing of the preceding months or years of distress suffered by a drinking doctor and his family.

Follow-up studies of medical students have found that later heavy drinking is often related to personality vulnerability, such as sensitivity to criticism and fear of failure. But seniors should note that of the stress factors which doctors recount in the trainee years, unsupportive seniors rate highly.[25,26,27] A very important predictor of which students will develop an alcohol problem is family history. As a rough calculation, alcoholism in a first-degree relative increases the chance that a medical student will at some time develop a serious alcohol problem from 1 in 20 to 1 in 5.[28] It is, of course, well established that alcohol dependence is familial. However, as well as being a stressful occupation (albeit at times a rewarding one too), it seems

that medicine may be a profession which selectively recruits people at genetic risk: a Colorado medical school found that twice as many medical students compared to a general population sample had an alcohol-dependent relative.[28]

Doctors' drinking

- **A useful warning sign: beware when alcohol is regularly used to solve a problem, whether to get to sleep, to 'try to concentrate', or to relax because of tension - alcohol's neuropharmacology means these problems could well get worse!**
- **Avoid heavy sessions: over 10 units (80 g) is definitely associated with a risk of accidents or arguments. A safe maximum is 3-4 units.**
- **Dependence is less likely to develop if the doctor has at least two or three days per week without taking alcohol.**
- **Yes, medicine is competitive, but the doctor has a duty to keep well. The doctor won a place in medicine and should value his qualities; beware of being unduly self-critical;[29] remember that we need to be 'good enough', only occasionally excellent, and that we do not have to be 'perfect'.**
- **The doctor should talk to a postgraduate advisor or Dean if he is prey to any kind of bullying, or sexual or racial abuse.**
- **Be extremely cautious with alcohol if there is a family history of alcohol problems.**
- **Seeking help if needed is rational, a sign of strength, not weakness. (Colleagues who have had the problem but are recovering can be contacted at The Doctors and Dentists Groups c/o Medical Council on Alcoholism tel: 0171 487 4445)**
- **Show your concern if a colleague drinks too much. Although at first the drinker seems to pay no attention, or makes you feel a kill-joy, the doctor can help his colleague much more than if nothing is said. The Scottish BMA 1998 leaflet gives advice.**

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