Section of Occupational Medicine

President Suzette Gauvain MRCP

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Alcoholism in the Aviation Industry

In introducing the topic for the evening Admiral Sir Dick Caldwell said that the problem of alcoholism is a growing one which is now causing increasing concern in governmental, medical and social circles. Particular point is given to this concern by the fact that there is a marked increase in the abuse of alcohol amongst the young and the very young and the problem is world wide.

In England and Wales deaths from cirrhosis of the liver have risen by 30% in the last two years. Since 1970 criminal offences involving alcohol have risen steadily for males and to a lesser extent for females. Official records indicate, in round figures, that there have been 46 000, 55 000 and 65 000 motoring offences where alcohol was a contributory cause, over the last three years. In parallel, the consumption figures have soared over the last three years and since 1970 the amount spent on alcohol in this country has risen from £850 million to just under £2000 million.

The reason for the increasing size of the problem is not known though many suggestions have been put forward, including an affluent society which allows the young the wherewithal to buy this legal and still relatively cheap mind changer – for thousands of years man has developed and used mind changers. Other possible causes are television advertising and increasing availability (off-licences and supermarkets).

Some doctors find it difficult to accept the statement that alcoholism is a disease but it is easier to do so if one approaches it from the community medicine angle, thus including social and environmental factors in the etiology.

Although the matter is a controversial one, the majority of workers in the field consider that total abstinence is essential for the recovered alcoholic to prevent relapse. The approach to the problem must be a multidisciplinary one, with doctors playing an essential part.

As long ago as 1956 the American Medical Association recognized alcoholism as a disease, said Dr L G Lederer, Corporate Medical Director of American Airlines. In the USA it has become the number one drug problem. From figures produced in one large clinic in the State of California it has been shown to be the leading cause of death in both males and females aged 30–60 years, an age range which corresponds to the active life of American airline pilots.

Examination by a physician is required to detect the chronic effects of alcohol which appear after its long continued abuse. Alcohol resembles syphilis in that it affects all bodily systems and can mimic any other disease. If not detected and treated, the chronic effects can adversely affect the performance of a pilot and ultimately lead to his grounding. Not infrequently pilots in training seek relief in alcohol from anxieties and frustrations.

In 1967 American Airlines began to look into the question of a need for a programme on alcoholism. Top management were persuaded of the need when research revealed the extent and cost of alcoholism to American Airlines in terms of disciplinary dismissals of employees, the number of persons affected, their seniority in the company and the variety of jobs they performed.

It was realized that for a programme to succeed it must include everyone 'from pilots to porters' and the confidence and cooperation of organized labour groups must be won. Meetings were arranged with pilot unions, medical personnel and members of management from most of the major air carriers. As a result of these, a code of practice and procedure was drawn up for programmes within industry. This was adopted by American Airlines and a joint union and company programme came into being, administered by the American Airlines' corporate medical director.

The regulations governing the alcoholism rehabilitation programme state the policy as being the recognition of alcoholism as an illness which responds favourably to treatment and that employees suffering from such illness will receive the

same consideration as those with any other disease. This does not, however, exclude management's responsibility to maintain discipline or the right to disciplinary measures in cases of misconduct resulting from alcoholism. The element of discipline contained in the regulations is considered to be of great importance for the success of the programme. The threat of loss of job is an important factor in the recovery from alcoholism.

The regulations lay down the procedures to be followed by supervisors, unions and the medical department.

Detection of the alcoholic is based solely on job performance. The individual whose performance is falling off is referred with a report by the supervisor to one of the seven medical units for assessment. The medical department's responsibility is to study the supervisor's report, examine the employee and where, after laboratory tests (elevations of serum lactic dehydrogenase and transaminase SGOT), alcoholism is diagnosed, to recommend detoxification, social rehabilitation, individual therapy, counselling or in-house rehabilitation, as appropriate. Follow-up treatment is by means of weekly counselling for the first three months and fortnightly for the next four months. These sessions are mandatory.

The employee's supervisor and union have to be advised periodically of his progress but medical records are confidential.

The union's duty is to observe employees for indications of possible alcoholism and, where suspected, to refer the person, with the help of management, to the area medical director or other qualified help and to assist the employee's supervisor in his rehabilitation.

The procedure for returning the alcoholic to duty varies as between flight crews and ground staff. The government licensing agency requires a certificate of medical fitness for flying personnel and the Federal Aviation Regulations state that alcoholism is a cause for permanent grounding. During the past five years, however, the Federal Air Surgeon has decreed that in specific, classified circumstances, an exemption from the Regulations can be granted.

In the United States the Federal Aviation Administration has ruled that for general aviation pilots, eight hours must elapse between drinking and flying, from the bottle to the throttle. In practice, however, most airlines still require a time lapse of 24 hours between intake of any alcoholic beverage and on-duty time.

The main requirements for a successful programme for the alcoholic are: (1) Management and employee recognition of the problem. (2) Union cooperation and participation. (3) Adequate company insurance coverage for medical needs and sickness pay while rehabilitation is undertaken.

Alcoholism as a problem in pilots in British Airways was presented by Captain T L J Lakin, Assistant Flight Manager, British Airways.

A survey of accidents in general aviation showed that 19.3% of pilots and 8.1% of their passengers had detectable blood alcohol levels and yet investigation into commercial and military accidents failed to show any significant number where the effects of alcohol or drugs could have been a contributory factor. The explanation seems to rest in the fact that commercial and military pilots are well aware that their livelihood is dependent on good health and their continued employment depends on adherence to regulations that govern the intake of alcohol before a period of flying duty.

What do cause concern and become a problem however are the long-term effects of alcoholism on the general health of the pilot which can lower his operating standards and judgment in varying degrees.

The opportunities for the use of alcohol and for a dependence on it as an emotional prop are in all probability far higher amongst flying crew than other members of staff because of their work pattern and the length of time that they may spend away from home. Excessive drinking in most instances develops from the customary social habit of a drink on a night stop when alcohol may be available 'duty free'. For some this drinking relieves tension while in those suffering from fatigue it may help to induce sleep. The use of alcohol in this way is quite common for the majority of personnel and it can therefore be expected that some, because of their frequent exposure to excessive drinking, will become addicted to alcohol and will have impaired operational efficiency as a result. The realization that he has become dependent on alcohol may lead a man to secret drinking and the final result is a deterioration in his overall health and perhaps a personality disorder.

Owing to the need for strict medical standards for pilots whose operational decisions can have a considerable economic effect on the airline, particularly where high technology aircraft are concerned, the problem could prove to be extremely expensive for the company. Medical records confirm that clinical disorders of this kind have occurred in pilots.

Detection of the problem is difficult, for affected persons are invariably reticent about their own problem. Provided it is known that sympathetic help will be given to the sufferers there is more likelihood of the pilots admitting to the condition and of training captains advising on any sudden deterioration in operating performance of a pilot. Similarly, colleagues would be more inclined to advise their fellows to seek advice from medical staff.

The best method of resolving the problem is

therefore to convince the pilots and the Pilots' Union that no disciplinary action will be taken against pilots who declare their problem and seek help. The company's medical staff should then take steps to effect any cure that can be taken at the company's expense.

Mandatory medical examinations for pilots are carried out by the Civil Aviation Authority (CAA) at intervals of six months but there is no requirement to inform the pilot of any medical problems found. Regular medical screening by the company's medical services, with the object of giving pilots early warning of medical problems, seem to be the answer. At present such examinations are carried out on a voluntary basis.

It is considered that the scheme would be most effective if pilots could be seen before the age of 40. The test would include a glucose tolerance test for diabetes, blood cholesterol and triglycerides for early warning of cardiovascular disease, liver function tests for evidence of alcohol abuse, ECG, chest X-ray and general physical examination.

This would be followed by an interview when any necessary recommendations could be made. The objective of overcoming medical problems, including alcohol abuse, and ensuring the highest standards of operational fitness for pilots would be achieved if these examinations were made mandatory.

In discussing attitudes and treatments Air Vice Marshal O'Connor outlined the patterns of alcohol usage in the Western world. All of us are potential alcoholics and self-control is essential to prevent moderate, social drinking developing into addiction.

Dependence upon alcohol is reached when health, home life or job efficiency has been repeatedly damaged or impaired by alcohol and this is a medical condition requiring special help to arrest. Alcoholism leads to a number of symptoms which make the sufferer unreliable and therefore unsuited and unfit for employment in a role concerned with the safety of passengers in the air. Those members of air crew who work on the flight deck (pilots, flight engineers and navigators) hold a flying licence issued by the CAA. This licence is issued only to those who can produce a certificate of medical fitness as a result of a satisfactory periodic medical examination (PME) carried out by doctors specially authorized as air crew examiners. The cabin crew, who also perform an integral role in the safety of the aircraft, are not subject to PME.

The International Civil Aviation Organisation (ICAO) decrees that a history of alcohol addiction is a permanent bar to a flying licence. There is thus a responsibility to get air crew with drinking problems to treatment before they reach the stage of alcohol addiction. If this can be done and they become teetotal the CAA will usually revalidate their licence.

The difficulties of diagnosing alcoholism include the patient's unwillingness to report to a doctor, the fact that he is more likely to complain of dyspepsia or other symptoms than admit to his drink problem, the fact that alcoholism mimics other diseases and the question of evaluating what is a fair amount of alcohol.

The man should be informed that his licence can only be revalidated if he abstains from alcohol for a considerable period. Length of surveillance depends on severity and six to twelve months' total abstinence is required before revalidation in severe cases. Group therapy in an alcohol unit is best if he relapses. Here he can be introduced to Alcoholics Anonymous.

After a period of six to twelve months' total abstinence the man is reviewed by a psychiatrist. A recommendation may then be made to the CAA regarding revalidation of the licence and, after three years' total abstinence, he is discharged from surveillance.

Early diagnosis is of paramount importance and employers and unions have a moral responsibility to get persons quickly to treatment where there is obvious dependence upon alcohol. Alcoholism is especially dangerous in an occupation which carries responsibility, such as transportation, whether in the air, on land or by sea. Prevention is better than cure but treatment is available for those who succumb to the disease.

J W CUTHBERT
Senior Medical Officer
May & Baker Ltd;
Honorary Secretary, Section of Occupational Medicine