The abuse of prescribed medication

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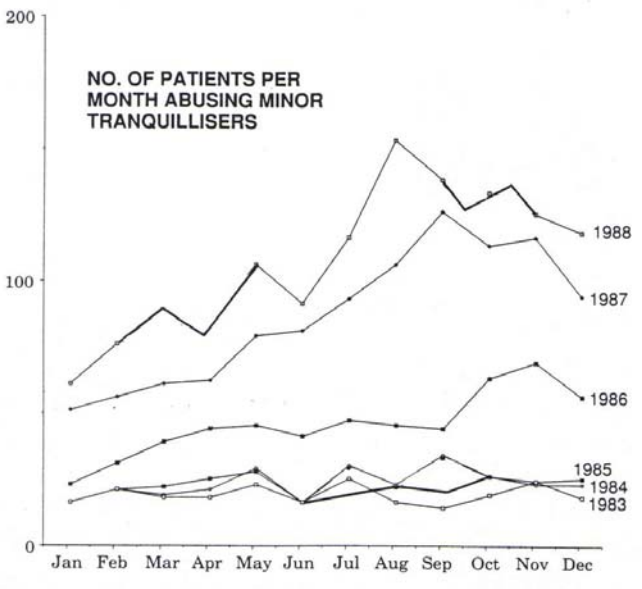
The prevalence and management of prescribed medication abuse is outlined. The patterns of presentation are related to availability and the abuser's profile. Ireland recorded a world first in the abuse of Diconal. Methadone is replacing heroin as a problem drug among abusers. Early recognition and intervention give good treatment outcomes.



Amphetamines are synthetic stimulants first produced in 1887, but not used medically until the 1930's. During the Second World War and the Vietnam War amphetamines (Dexedrine) were used to increase the performance of soldiers. In the 1950's and 1960's they were widely prescribed as slimming tablets and used to treat mild depression. The non medical use of amphetamines was very popular among teenagers during the 1960's when large quantities of "purple hearts" were taken to stay awake at parties. A number of other drugs such as methylphenidate (Ritalin), diehylpropin hydrochlor. (Tenutate Dospan) and fenfluramine hydrochlor. (Ponderax) have amphetamine like effects; the latter two are usually used as sliming agents while methylphenidate is mainly used in the treatment of narcolepsy and the hyperkinetic syndrome.

Tolerance to many of the effects of amphetamines develops rapidly, with some users taking up to 1 gramme per day. When the drug is discontinued a user feels depressed, fatigued, sleepy and extremely hungry. The amphetamine has

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merely postponed fatigue and hunger and depleted the body's own reserves of energy, this feeling is called the "crash". Regular users of high doses are liable to develop an 'amphetamine psychosis' which resembles schizophrenia with thought disorder, hallucinations and delusional thinking. These latter feelings may lead to hostility, aggression and violence as they defend themselves against imaginary enemies. The psychosis usually disappears when drug-taking stops, but in some people it may persist for some considerable time.

Violence rather than toxicity has been the major cause of death among amphetamine users. However, the hazards of injecting and the lack of sleep and food debilitates the heavy users, lowers resistance to infection, and can lead to serious damage of health.

Amphetamines were controlled in 1970 in an attempt to reduce their availability. As a result very few patients currently attending the Centre admit to the abuse of amphetamines. The small number that occasionally use amphetamines tend to be patients with a drug history dating from the late 1960's or early 1970's.

In the 1960's barbiturates were extensively used to treat anxiety and insomnia and prescriptions for these drugs comprised 20% of all prescriptions written. The adverse effects of barbiturates include drowsiness, loss of co-ordination, lethargy, slurred speech and confusion. These effects resemble alcohol intoxication and unpredictable changes in mood, similar to those that follow alcohol intake, occur ranging from elation and euphoria to depression. Tolerance develops rapidly and death from respiratory depression following overdose was once common.

Following abrupt cessation a withdrawal syndrome consisting of apprehension, anxiety and confusion

TABLE 1
Stimulants:

	Drug	Street Name
1.	Amphetamines	Speed, Dexies.
2.	Ritalin (methylphenidate)	Rits
3.	Anorectics (e.g. Tenuate Dospan)	'Tomb Stones'

TABLE 2
Sedatives:

	Drug	Street Name
1.	Barbiturates	Barbs
2.	Non-Barbiturates (a) Dalmane (flurazepam), Mogadon (nitrazepam), Halcion (triazolam) (b) Valium (diazepam), Librium (chlordiazepoxide), Heminevrin (chlormethiazole)	Tranks
3.	Antihistamines (cough mixtures): Phensedyl (promethazine hydrochloride) Actified linctus (triprolidien hydrochloride)	

TABLE 3
Typical profile of a minor tranquillizer abuser

1. An older age group - majority of these patients are 30+ years and are women.
2. Longer history of abuse - often more than 10 years.
3. Better educational attainment - many will have remained at school until 16 or 17 years old.
4. No legal involvement.
5. history of employment/role of housewife for a number of years.
6. Good support from family/spouse.
7. History of alcohol abuse prior to becoming addicted to minor tranquillizers.

TABLE 4
Opiate & Opiate Analogues:

	Drug	Street Name
1.	Diconal (dipipanone hydrochlor)	Dyke.
2.	Palfium (dextromoramide)	Palf.
3.	Physeptone (methadone)	Phy.
4.	Others - Pethidine, Morphine, Omnopon, DF118, Fortral, Temgesic, Doloxene Co.	

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is well recognised. Delusions hallucinations and convulsions can also occur. Likewise dependence was common with barbiturates but these are now largely replaced as anxiolytics and hypnotics by the benzodaizepines which have a much greater safety margin. The undoubted superiority of these drugs over barbiturates engendered complacency and it is only comparatively recently that the adverse effects of benzodiazepines have been recognised. Chief among these is a withdrawal syndrome consisting of rebound anxiety on cessation of treatment following prolonged use. Part of the difficulty in recognising this syndrome is that it consists largely of the sort of symptoms that the drug was initially used to treat. Only time can distinguish a true withdrawal syndrome from re-assertion of the anxiety disorder as the withdrawal effects can persist for some weeks. They appear within 2-3 days of abrupt cessation of a short acting drug or within a week with a long acting drug. Such withdrawal symptoms occur whether the drug is being used as an anxiolytic or a hypnotic. About half those who experience a withdrawal syndrome also experience perceptual disturbances to some degree. These may include heightened awareness of sensory stimuli, feeling of continuous movement, and depersonalisation. Infrequently, convulsions, delusions or hallucinations can occur. In summary, the withdrawal is similar to that following barbiturate withdrawal but markedly less severe. Deliberate slow reduction in dosage over 1-3 months constitutes the best protective measure apart for the more sensible measure of limiting usage of benzodiazepines to intermittent and short term use with a frequent review of treatment.

The number of patients presenting for treatment at the Clinic whose primary drug of addiction is one of the minor

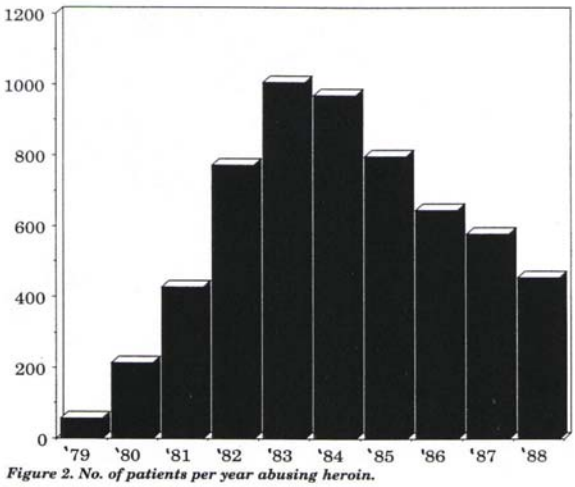

Figure 2. No. of patients per year abusing heroin.

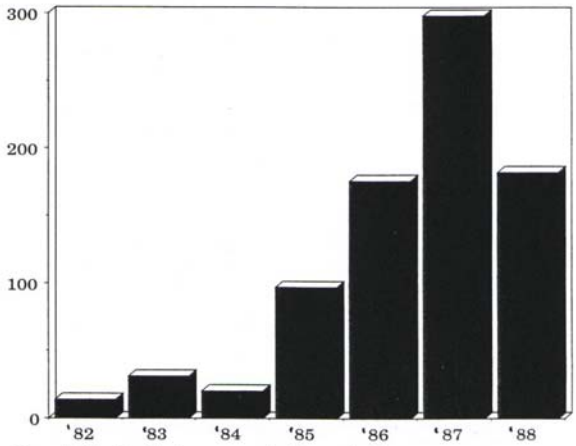

Figure 3. No of patients per year abusing methadone.

tranquillizers such as Lorazepam or Diazepam has increased greatly over the past few years,

Figure 1 gives an indication of the extent of this trend but the numbers given per month of those abusing minor tranquillizers reflect the total number of patients abusing these drugs and not just those who are primarily addicted to minor tranquillizers. The characteristics of most of these patients vary considerably from our opiate abusing patient population. Table 3

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illustrates some of these differences.

As can be seen from this profile many of those abusing tranquillizers also have many positive aspects to their lives which can act as strong motivating factors in rehabilitation e.g. fear of loss of a job. While initially these patients find the process of detoxification very difficult and experience much anxiety and even depression afterwards, if they can be helped through this difficult phase eventual rehabilitation may be successful.

Cough remedies, decongestants and antihistamines

Doctors will be familiar with the potential for abuse of these preparations. Cough mixtures frequently contain a miscellany of ingredients with abuse potential including a morphine-like cough suppressant, a sympathomimetic and an antihistamine. The indirectly acting sympathomimetics used as decongestants or bronchodilators have abuse potential related to that of the amphetamines in that they are generally structurally similar to amphetamines and exhibit some central stimulant activity.

Many antihistamines have pronounced central depressant activity especially in combination with alcohol. Experience suggests that any medicines with central depressant activity have abuse potential and it is clear that the most potent sedative antihistamine mixtures are sought by abusers.

In the Centre between 5-25 patients are seen per month who are abusing cough mixtures. Many tend to be in the younger age group i.e. under 20 years of age.

Medical use of the more potent opiates such as morphine diamorphine, methadone, pethidine, and dipipanone is reserved for the treatment of intractable severe pain and are subject to such close medical supervision that the risk of dependence can be predicted and controlled. Less stringent observation frequently applies when medium potency analgesics are used for painful conditions in which aspirin, paracetamol or ibuprofen do not provide analgesia are inappropriate.

Prolonged regular use constitutes the greatest risk factor inducing dependence with all of these drugs. Under these conditions tolerance also develops. Greatest risk of moderate opiate dependence occurs with prolonged use of Fortral (pentazocine) and likewise mild to moderate dependence can occur with Doloxene Codeine and DF118 (dihydrocodeine tartrate).

Overdose with these drugs produces respiratory depression and many of the other undesirable effects of morphine. In therapeutic doses they may impair motor performance making driving or operating machinery hazardous. These adverse central depressant actions are potentiated by alcohol.

PRACTICAL POINTS

- **Violence, rather than toxicity, has been the major cause of death among amphetamine users.**
- **In the 1980's barbiturates were extensively used and comprised about 20% of all prescriptions written.**
- **The number of patients whose primary drug of addiction is one of the minor tranquillizers has increased greatly over the past few years.**
- **Cough mixtures frequently contain a miscellany of ingredients with abuse potential.**
- **The majority of patients, about 80%, attending the Drug Treatment Centre are addicted to Heroin as their drug of first choice.**
- **Ireland was the first country in the world o report cases of Diconal abuse**

The majority of patients, about 80% attending the Drug Treatment Centre, are addicted to Heroin as their drug of first choice (Figure 2).

However, most patients will substitute other opiates when Heroin is not available e.g. Dipipanone, Dextromoramide or Methadone. Ireland was the first country in the world to report cases of Diconal abuse. More recently, the Centre has noted a large increase in the number of patients abusing methadone, as illustrated in Figure 3.

In 1982, 14 patients were reported as abusing Methadone and this figure rose 97 in 1985. In 1987, 298 patients were identified as abusing Methadone - a twenty fold increase on the 1982 figure. The careful control and monitoring of methadone either in maintenance of detoxification is the cornerstone of treatment at the Unit. The increasing availability of Methadone on the street greatly undermines efforts to control out-patient detoxification programmes. As a result all patients abusing methadone can only be offered in-patient detoxification. This has created yet a further demand on the limited number of beds available in the in-patient unit at Beaumont Hospital. As most of the Heroin available in Dublin is only 10-15% pure, detoxification may only take about two weeks, whereas a patient using a substantial quantity of Methadone clearly needs a much higher initial dose and a longer period of withdrawal.

Conclusion

It is hoped that this brief outline of the abuse of prescribed medication will heighten awareness of the abuse potential of certain drugs. Further, that patients in the earlier stages of dependency will be recognised and referred for treatment. Early intervention has been shown to greatly facilitate a positive treatment outcome.

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