

Minor Tranquillisers & Sedatives

Use and Misuse in the West of Ireland





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Foreword

It is with great pleasure that I introduce *Minor Tranquillisers and Sedative Use and Misuse in the West of Ireland.*This is the first in a series of research reports commissioned by the Western Region Drugs Task Force.

The National Drugs Strategy 2001-2008 and Western Region Drugs Strategy 2005-2008 emphasised the importance of research. It is the first step in the development of services, establishment of best practice guideline, and assists in ensuring value for money.

The aim of the National Drugs Strategy is "to significantly reduce the harm caused to individuals and society by the misuse of drugs and alcohol through a concerted focus on supply reduction, prevention, treatment and research" (Shared Solutions, 2005).

In order to significantly reduce harm we must first identify the causes. This report focuses primarily on the three parties involved in a prescription: the Prescriber, the Pharmacist and the Patient; and brings together perspectives from service providers and service users aswell as official statistical sources. This document contains disquieting evidence of the misuse of minor tranquillisers and sedatives and of poor prescribing patterns. However, it is important to note that many GPs do adhere to the Good Practice Prescribing Guidelines for Clinicians, issued in 2002. This report also makes important observations in relation to the monitoring systems currently in place.

On behalf of the Western Region Drugs Task Force my thanks to Kealan Flynn of iWrite Consulting for his dedication. He has worked tirelessly on this report and his effort is reflected in the pages that follow. His findings will encourage much needed debate and I trust they will influence members of the medical profession when prescribing minor tranquillisers and sedatives in the future. Thanks also to Dr Saoirse Nic Gabhainn of the Health Promotion Research Centre, NUI, Galway for her invaluable contribution as research advisor on all three reports.

I welcome the opportunity to thank John Curran, T.D., Minister of State with responsibility for the National Drugs Strategy for launching this report; and the Department of Community, Rural, and Gaeltacht Affairs for funding this research.

A copy of this research report will be distributed to all GPs and Pharmacies in the west of Ireland. The publication will also be available for download from www.wrdtf.ie.

As Shared Solutions states: "No one agency can tackle all drug-related problems on its own, but working together we can hopefully reduce the harmful impact of substance misuse".

This document is a significant first step in achieving our goal.

Orla Irwin Co-ordinator Western Region Drugs Task Force



Glossary

DDD: Defined Daily Dose - an international measure of drug utilisation pioneered by the World Health Organisation. It is the assumed average maintenance dose per day for a drug used for its main indication in adults. DDD is seen as a technical value, a close approximation of the average of the actually used dosages.

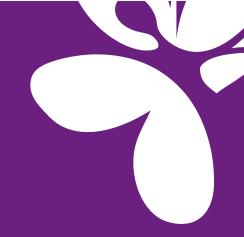
DPS: Drug Payment Scheme - provides a range of healthcare services at a reduced rate to those who are eligible.

GMS: General Medical Service (Medical Card) - scheme that provides a range of healthcare services free of charge to those who are eligible.

LTI: Long Term Illness - scheme that provides certain healthcare services free of charge to individuals with designated long-term illnesses and conditions e.g cystic fibrosis, diabetes and epilepsy, among others.

Minor Tranquillisers and Sedatives: Term used throughout this report to refer to the class of psychoactive substances that includes benzodiazepines and related drugs. Described in Martindale, the international drug reference book, as anxiolytic sedatives (formerly minor tranquillisers), which have been used in the management of anxiety disorders; and drugs used to produce sleep (hypnotics).

PCRS: Primary Care Reimbursement Service - the arm of the Health Service Executive which processes payments to all GPs, Dentists, Pharmacists and other healthcare professionals who provide free or reduced cost services to the public.





Minor Tranquillisers and Sedatives
- Benefits and Problems



Introduction

Benzodiazepines and non-benzodiazepine hypnotics, or minor tranquillisers and sedatives as they are referred to throughout this report, are a class of psychoactive drugs with hypnotic and sedative effects. They have powerful, proven benefits when taken in small doses for a limited time. The problem is that many people may have become addicted because they have been receiving and taking them for longer or at a higher dose than they should, perhaps for months or years. In 2002, official guidelines were issued to encourage correct usage and good prescribing, and to cut down on misuse and poor prescribing. However, there is clear evidence in the west of Ireland of incorrect use and prescribing, especially for women, older people and people on low incomes.

This first chapter presents the findings from the literature review, which has been put together following a study of original papers accessed through respected internet resources like Pub Med, Medline Plus, ProQuest, Business Source Premier, the Social Sciences Citation Index, as well as the salient points from the international drugs bible, Martindale.¹

The first section of this chapter gives a general overview of the history and impact of minor tranquillisers and sedatives. The second outlines the questions this research seeks to answer. The third describes the current position in terms of legislation and regulation, and outlines the main points from the official guidelines on the correct usage and prescribing of minor tranquillisers and sedatives. The final section summarises the findings of international studies on the misuse of these drugs.

History and Impact

Benzodiazepines are psychoactive drugs that are used to aid sleep, reduce anxiety and induce feelings of relaxation. They are widely prescribed but widely misused. Along with alcohol and barbiturates, they act primarily on the central nervous system, affecting brain function and altering an individual's perception, mood, consciousness and behaviour.

According to Black's Medical Dictionary, benzodiazepines make up "a large family of drugs used as hypnotics, anxiolytics, minor tranquillisers, anticonvulsants, pre-medication, and for intravenous sedation ... short acting ones are used as hypnotics, longer acting ones as hypnotics and minor tranquillisers ... they act as a specific nervous system receptor or by potentiating the action of inhibitory neuro transmitters. They have advantages over other sedatives by having some selectivity for anxiety rather than general sedation."

Benzodiazepines were first marketed as a safer alternative to barbiturates, an older class of drugs that also depressed the central nervous system, but which had often been linked to accidental death and deliberate suicide, particularly when taken with alcohol to bring on sleep. According to Parrott et al (2004), benzodiazepines do not cause respiratory slowing and so are far less dangerous in overdose. This was a key reason why they replaced barbiturates for relieving anxiety conditions. Anxiety refers to a broad bundle of clinical conditions making up between 5% and 10% of psychiatrically diagnosed diseases in the western world.

The first benzodiazepine was a drug called Chlordiazepoxide, which is marketed under the trade name of Librium. When it was studied, it was found to have sedative, anticonvulsant and muscle-relaxant effects. Discovered in 1957, Chlordiazepoxide had "remained untested until a research chemist chanced upon it while tidying up the



laboratory." ³ Other related drugs followed over the next two decades; and the benzodiazepines achieved such worldwide popularity that they became the most commonly prescribed drugs in the 1970s and 1980s. By the mid-1980s, there were 17 benzodiazepines on the market. A decade previously, two brands - Librium and Valium - accounted for half of all psychoactive drug prescriptions dispensed in the USA; and it was estimated that half a billion people worldwide had taken a benzodiazepine.

It has since been found that regular use of benzodiazepines leads to loss of therapeutic benefit, increased dosage, unpleasant withdrawal symptoms and drug dependence. "Even small doses [impair] the ability of pilots to fly aircraft and motorists to drive cars ... [their] ... disinhibitory effects also mean that they are associated with antisocial acts, including physical and verbal aggression and numerous types of crime." 4

Salzman (1999) advises, however, that worries about safety and dependence should not take from their role and value: "Benzodiazepines are neither a panacea nor a curse", he says. "It is unfortunate that legitimate therapeutic use is sometimes obscured by controversy over issues of safety and dependence. Despite adverse effects, dependence and inappropriate use, benzodiazepines remain an appropriate pharmacological treatment for anxiety, one of the most prevalent forms of human suffering." ⁵

Ireland has neither been isolated from nor immune to developments elsewhere. This research is intended as a contribution to the existing store of knowledge about the use of minor tranquillisers and sedatives and their benefits and drawbacks. The problem is not correct use for the right reasons, but the problems that can and do occur when they are used inappropriately.

It is important in this context to acknowledge that there are three parties to every prescription for a minor tranquilliser or sedative; and in situations where usage may be inappropriate, that each is part of the problem and must be part of the solution. There is the patient who obtains the inappropriate prescription, the prescriber who writes it, and the pharmacist who dispenses it. We should expect the patient to be the least and the prescriber and the pharmacist the most powerful in this relationship. This raises the key question of who should act in order to prevent or minimise inappropriate use and prescribing; and the related question of what assistance they may need to act appropriately.

The elephant in the room is the state-funded drug reimbursement regime, which pays a professional fee to both the doctor and the pharmacist for every prescription validly written, and validly dispensed, but which appears by its very nature to be singularly ill-equipped to deal with inappropriate prescribing and dispensing. Exchequer spending on minor tranquillisers and sedatives in Ireland has almost doubled in the space of eight years - from €14.01m in 2000 to €26.42m in 2007. The cumulative spend from the public purse on drug costs and related professional fees in respect of these drugs stands at €168.9m over the whole period; and the professional fees paid on the two main drug refund schemes have now begun to exceed the ingredient costs of the drugs.6

But, if the elephant in the room is the drug cost reimbursement regime, the absent friend has to be the electronic monitoring system that would alert prescribers, pharmacists and public health authorities in 'real time' to be vigilant at all times in the interests of the individual and the community as a whole.

³ Parrott A, Morinan A, Moss M and Scholey A (2004): Understanding Drugs and Behaviour, p.128. West Sussex, England: John Wiley & Sons.

⁴Parrott (2004): op. cit. p.120.

⁵ Salzman, C. (1999). An 87 year-old woman taking a benzodiazepine. Journal of the American Medical Association, 281, 1121-1125.

⁶ Data Source: Primary Care Reimbursement Service, Health Service Executive.



Benzodiazepine Committee - Good Practice Prescrbing Guidelines

The Report of the Benzodiazepine Committee (2002) divided the benzodiazepines into two broad but not mutually exclusive categories:

- a) Anxiolytics i.e., anxiety reducing drugs e.g.,
 Diazepam, Alprazolam, Clobazam,
 Bromazepam, Chlordiazepoxide, and
 Chlorazepate.
- b) **Hypnotics** i.e., sleep-inducing drugs e.g., Flunitrazepam, Flurazepam, Loprazolam, Lormetazepam, Nitrazepam, and Temazepam.

A number of related drugs – the non-benzodiazepine hypnotics or second-generation anxiolytics – were also included in that report. The 'Z drugs' – Zaleplon, Zolpidem and Zopiclone – have a different make-up to the benzodiazepines, but act similarly. They have the same downsides i.e., tolerance, dependence, withdrawal symptoms and addiction.⁷

In essence, hypnotics are used to relieve insomnia, but only after the underlying causes have been discovered and treated; and the professional advice is that long-term use, especially of benzodiazepines, should be avoided. Anxiolytics, in contrast, are used for short-term relief (two to four weeks only) of anxiety that is severe, disabling or causing unacceptable distress to an individual. Where the person has chronic anxiety (i.e., lasting for more than four weeks), it may be more appropriate to use an antidepressant.⁸

The Benzodiazepine Committee stated that, when used correctly, benzodiazepines are beneficial for a wide range of clinical conditions, like anxiety, insomnia, panic, epilepsy, and pre-surgical stress. It stated that nearly all of their downsides come from long-term use, and that tolerance, dependence and withdrawal effects can be seriously debilitating.9

However, the report also noted that, while the major medical bodies had advised that benzodiazepines should not be prescribed for more than two to four weeks, there was evidence that there were still many long-term prescribed users, who appeared to be receiving little advice or support from their doctors; and some medical practitioners who were not well informed about benzodiazepine withdrawal symptoms or methods of withdrawal.¹⁰

Examining the prescribing patterns for medical card holders, who numbered about one-third of the population at the time, the Benzodiazepine Committee found that 1 in 10 people overall and 1 in 5 of people over 60 were prescribed minor tranquillisers and sedatives. It also found that the standard prescription quantity appeared to be for a month's supply, from which it concluded that prescribing in many cases was both routine and excessive.

⁷See Martindale (2002) op. cit. 649-714 for detailed scientific information on the evidence.

⁸ British National Formulary – accessed through NHS Scotland Information Services Division, at http://isd.scot.nhs.uk/isd/information-and-statistics.jsp (Accessed 8 May 2008).

⁹ DOHC (2002). Report of the Benzodiazepine Committee. Dublin: Department of Health and Children.

¹⁰ In January 2006, the Minister for Health and Children informed Dail Eireann that good practice guidelines on the prescribing of benzodiazepines had been circulated widely to Health Service Executive areas and to General Practitioners throughout the country. She added that arrangements had been put in place by HSE treatment clinics and GPs to reduce sources of multi-prescribing to known drug users; and that similar, less detailed, requirements were laid down for prescriptions for medicinal products other than controlled drugs.



Legislation and Regulation

In Ireland, only doctors and dentists may prescribe minor tranquillisers and sedatives, and only pharmacists may dispense them. 11 Under the Medicinal Products Regulations, there are a number of control schedules. The first schedule lists all of the medicines for which a prescription is required. The schedule has three categories – S1A, S1B and S1C. A prescription for an S1A medicine, which includes minor tranquillisers and sedatives, may be dispensed only once, unless the prescriber states it can be repeated. However, it is not enough for the prescriber to write the word 'repeat': specific dosages and either the number of occasions or the intervals of supply (e.g., weekly or monthly) must be clearly stated and cannot exceed six months. 12

A core part of the regulatory role of the Pharmaceutical Society of Ireland is about ensuring that dispensing practices comply with these requirements. Inspectors must discuss with a pharmacist at the time of an inspection if they suspect incorrect prescribing or ordering of controlled drugs. Inspectors maintain a regular dialogue with the HSE's primary care units¹³, who maintain, or used to maintain, a data store on prescribing by GPs. This was introduced under the drug budgeting scheme.

When the Benzodiazepine Committee was proposing changes for promoting rational

prescribing, it was considered that one use of the data store could be in 'red flagging' prescribing patterns that were out of kilter with a regional norm. This could then be the trigger for a designated person, perhaps another medical practitioner, to offer advice and support to the doctor concerned.¹⁴

However, the data store does not appear to have been used in this way at any time. It may thus be argued that this makes it harder to identify, investigate and deal effectively with those who prescribe poorly; harder to develop a system of medical audit or peer review of prescribing practices; and harder for Primary Care Units to be proactive at all times in providing advice and support to GPs on best prescribing practice. But though it may be harder, it is not impossible.

The main initiatives for promoting good prescribing practice in the region have been the guidelines issued by the Department of Health and Children, and various circulars from the HSE's Primary Care Unit. In addition, various initiatives have been taken by the Irish College of General Practitioners, including prescribing road shows, substance misuse programmes, and continuing medical education. However the evidence of this report is that on the whole these actions have had little impact, certainly not in this region.

¹¹ Medicinal Products Regulations 2003-2007 and Misuse of Drugs Regulations 1988.

¹² National Medicines Information Centre (2004). Medication Safety, 10(6).

¹³ Personal Communication from the Pharmaceutical Society of Ireland.

¹⁴ Personal Communication from the Irish College of General Practitioners.

¹⁵ Personal Communication from the Irish College of General Practitioners.



Literature Review

According to Julien (2001), the major use of benzodiazepines in a clinical setting is for "anxiety that is so debilitating that the patient's lifestyle, work and interpersonal relationships are severely hampered." ¹⁶

Cape and others (2002) document their effects as including:

- Tolerance
- Dependence
- · Emotional blunting
- Drowsiness
- Lethargy
- Motor in-coordination
- Decreased reaction time
- Muscle weakness
- Confusion
- Vertigo
- Headache
- Depression
- Blurred vision
- Slurred speech
- Paradoxical euphoria, excitement, restlessness, hypomania, and feelings of invisibility, invincibility and invulnerability. 17

However, non-medical usage is common. In the USA, nearly 10% of those with non-medical use meet the criteria for misuse / dependence. In Dublin, minor tranquillisers and sedatives have been identified as the most popular drugs of misuse among clients on methadone maintenance. Restrictions on prescribing of Zopiclone to drug misusers have been recommended. In the issue of Zopiclone dependence has also been documented in case reports, clinical studies and

literature review; and an increased risk of misuse has been documented for patients with a history of dependence or misuse, and for patients with psychiatric illnesses.²⁰ The general issues of dependence, withdrawal and misuse in respect of minor tranquillisers and sedatives²¹ are documented extensively in the literature, and in acclaimed international drug reference books like Martindale.²²

Martindale notes that dependence may develop after regular use of benzodiazepines even in therapeutic doses for short periods. While dependence cannot be predicted, risk factors include high doses, regular continuous use, use of short-acting drugs, use in patients with dependent personality characteristics or a history of drug or alcohol dependence, and the development of tolerance.

Symptoms of withdrawal include:

- Anxiety
- Headache
- Dizziness
- Tinnitus
- Irritability
- Perspiration
- Muscle twitchingHallucinations
- Convulsions
- Psychosis

It has been found that short- or long-term patterns of benzodiazepine misuse are associated with excess sedation, cognitive impairment and increased risk of accidents.²³ Studies of polydrug consumption have confirmed that benzodiazepine misuse is widespread among heroin users, and

¹⁶ Julien, R.M. (2001). A Primer of Drug Addiction. New York: Worth. p.163.

¹⁷ Cape, G., Hulse, G., Robinson, G., Mclean, S., Saunders, J., Young, R. & Martin, J. (2002). Sedative Hypnotics. In G. Hulse, J. White & G. Cape (eds.) Management of Alcohol and Drug Problems. Melbourne: Oxford University Press.

¹⁸ Becker, W.C., Fiellin, D.A. & Desai, R.A. (2007). Non-medical use, abuse and dependence on sedatives and tranquillizers among US adults: psychiatric and socio-demographic correlates. Drug and Alcohol Dependence, 90(2-3), 280-287.

¹⁹ Bannan, N., Rooney, S. & O'Connor, J. (2007). Zopiclone misuse: an update from Dublin. Drug and Alcohol Review, 26(1), 83-85.

²⁰ Haasen, C., Mueller-Thomson, T., Fink, T., Bussopulos, A. & Reimer, J. (2005). Zopiclone dependence after insomnia related to torticollis. International Journal of Neuropsychopharmacology, 8(2), 309-310.

²¹ Jones and Sullivan (1998) find that zopiclone appears to cause dependence with long-term use. Others suggest the risk of dependence on zopiclone may be greater in those with dependent personalities. See BMJ (1998) 316, p.117 and BMJ (1998) 317, p.146.

²² See Martindale (1992) op. cit. 'Anxiolytic Sedatives, Hypnotics and Antipsychotics', pp. 649-714 for a detailed discussion of and specific references to individual minor tranquillisers and sedatives.

²⁰Oster, G., Huse, D.M., Adams, S.F., Imbimbo, J. & Russell, M.W. (1990) benzodiazepine minor tranquillisers and the risk of accidental injury. American Journal of Public Health, 80, 1467-1470.



that when both are taken concurrently, there are numerous harmful consequences, including higher levels of risk-taking, fatal overdose, poorer health and psychological functioning. ²⁴ ²⁵ ²⁶ Concerns about the injection of Temazepam from gel capsules among heroin users, led to the withdrawal of Temazepam gel capsules in Australia. ²⁷ When taken together with Methadone, benzodiazepines are a major risk factor for premature death. ²⁸ ²⁹

Benzodiazepines are of limited therapeutic benefit for older people and increase the risk of adverse events, such as falls and fractures.30 31 32 One French study has found that benzodiazepine use could be held responsible for almost 20,000 injurious falls and nearly 1,800 deaths.33 In the USA, however, the incidence of hip fractures in older people did not decline following new surveillance rules obliging prescribers to notify the authorities of each prescription they issued for a benzodiazepine.34 While the limited availability of alternative therapies is identified as a contributing factor to continuing overuse35 there is also evidence that tapering-off and/or behavioural therapy are cost-effective.36

Significantly, dependence and withdrawal effects can occur within weeks, even when patients are receiving short-term therapy and/or the recommended dose.³⁷ ³⁸ According to Julien (2001), "early withdrawal signs include a return (and possible intensification) of the anxiety state for which the drug was originally given. Rebound increases in insomnia, restlessness, agitation, irritability and unpleasant dreams gradually appear. In rare instances, hallucinations, psychoses and seizures have been reported. Most of these withdrawal symptoms subside within one to four weeks."

People with a history of drug or alcohol misuse are most likely to misuse benzodiazepines, usually as part of a pattern of multiple drug misuse. 41 In the USA, for example, Alprazolam is used recreationally in repeated doses as an intoxicant, or in combination with alcohol and painkillers, or as a way to come down from a cocaine 'high'. 42

Benzodiazepines are more likely to be prescribed for women than men, and for those for whom levels of material deprivation are greatest. In addition, it has been reported that the pressures to which doctors may be subjected mean that good prescribing guidelines tend to be honoured more in

Benzodiazepine prescribing in elderly Australian general

²⁴ Hando, J., Hall, W., Rutter, S. & Dolan, K. (1998). Current State of Research on Illicit Drugs in Australia. Sydney: University of New South Wales.

²⁵ Australian Government's Institute of Criminology (2007).
Benzodiazepine use and harms among police detainees in Australia. www.aic.gov.au/media/2007/20071614.html (Accessed 21 April 2008).

²⁶ Darke, S., Degenhardt, L. & Mattick, R. (2007). Mortality Amongst Illicit Drug Users: Epidemiology, Causes and Intervention. Cambridge: Cambridge University Press.

²⁷ Ross, J. (2007). Illicit Drug Use in Australia: Epidemiology, Use Patterns and Associated Harm (2nd Edition). Sydney: University of New South Wales.

²⁸ Caplehorn, J. & Drummer, O. (2002). Fatal methadone toxicity: signs and circumstances, and the role of benzodiazepines. Australian & New Zealand Journal of Public Health, 26(4), 358-363.

²⁹ Ernst, E., Bartu, A., Popescu, A., Ilett, K., Hansson, R. & Plumley, N. (2002). Methadone-related deaths in western Australia 1993-99. Australian & New Zealand Journal of Public Health, 26(4), 364-370.

²⁰ Leipzig, R.M., Cumming, R.G. & Tinetti, M.E. (1999). Drugs and falls in older people: a systematic review and meta-analysis. Journal of the American Geriatric Society, 47, 30-39.

³¹ Cooper, J.W. (1993). Use of anxiolytics and hypnotic drugs. Nursing Homes: Long-Term Care Management, 42(6), 37-39.

³² Windle, A., Elliot, E., Duszynski, K. & Moore, V. (2007).

practice patients. Australian & New Zealand Journal of Public Health, 31(4), 379-381.

³³ Pariente, A., Dartigues, J.F., Benichou, J., Letenneur, L., Moore, N. & Fourrier-Reglat, A. (2008). Benzodiazepines and injurious falls in community dwelling elders. Drugs and Aging, 25(1), 61-70

³⁴ Quoted in BMJ (2007) 334, pp. 282-283.

³⁵ Windle *et al.* (2007). op. cit.

^{**}Oudevoshaar, R., Krabbe, P., Gorgels, W., Adang, E., Val Balkom, A., Van De Lisdonk, E. & Zitman, F (2006). Tapering off benzodiazepines in long-term users: an economic evaluation. PharmacoEconomics, 24(7), 683-695.

³⁷ Busto U, Sellers EM, Naranjo CA, Cappell H, Sanchez-Craig M, and Sykora K: 'Withdrawal reaction after long-term therapeutic use of benzodiazepines'. New England Journal of Medicine 1986: 315: 854-859

McKinnon, G.L. & Parker, W.A. (1982). Benzodiazepine withdrawal syndrome – a literature review and evaluation.
 American Journal Drug Alcohol Abuse, 9(1), 19-33.
 Julien (2001). op. cit. p.165.

⁴⁰ The issue of rebound insomnia from long-term use of benzodiazepines has also been documented briefly in Zablocki, E. (2006), Most insomnia medication effective for short-term use', Managed Healthcare Executive, 16(4), 52-53.

⁴¹ Hardman, J.G., Limbird, L.E., Molinoff, P.B., Ruddon, R.W. & Gilman, A.G. (1996). Goodman and Gilman's Pharmacological Basis of Therapeutics. New York: McGraw-Hill. pp. 365-367. ⁴² A very serious problem, Newsweek, 139(6), 2 November 2002.



the breach than in the observance, the consequences of which include massive oversupply to, and associated misuse, in the community.^{43,44}

In short, the everyday realities in a busy General Practice make it easy for a determined patient to pressure a doctor into writing a prescription they might prefer not to give; and more likely that a doctor, who may have a long line of patients to see in a short time, will simply decide that discussion and debate with a particular patient is unlikely to have any immediate benefit.

The impact of the problem of benzodiazepine misuse on specific population groups has been tracked in successive national drug prevalence surveys. During 2002-2003, sedatives, minor tranquillisers or antidepressants had been prescribed to 12% of people aged between 15 and 64, but to a higher proportion of people in a difficult or disadvantaged life situation:

- 25% of people on long-term state benefits
- 23% of those not in paid employment
- 26% of separated people
- 42% of divorced people
- 28% of widowed people

Prisons have significant problems with minor tranquillisers and sedatives. A recent issue of the magazine 'DrugNet' presented statistics from the Prison Service in 2007, which found that in Castlerea Prison, County Roscommon, of the 92 drug tests carried out for alcohol, amphetamines,

benzodiazepines, cannabis and cocaine, a total of 17, or 19% of all positive tests, were for benzodiazepines, higher than any other drug.⁴⁵

In the general population, women (15%) are much more likely than men (9%) to have taken minor tranquillisers and sedatives. This gender bias is also evident in other countries. In Canada, for example, women are twice as likely to have benzodiazepines prescribed for non-clinical symptoms, like stress, acute or chronic illness, physical pain, or adjustment to a major life change, and to have them prescribed for longer periods. 47

Research in the Dublin suburb of Ballymun also documents a gender bias in prescribing for women, a level of benzodiazepine prescribing that may be notably higher than the national level, and a relationship between socio-economic disadvantage and use of benzodiazepines. It concludes there is a significant supply of benzodiazepines in the community from legitimate prescriptions, that this is commonplace and culturally accepted, and plays a part in the development of substance misuse problems.⁴⁸

In Australia, the experience is that the majority of drugs being diverted to the illicit market are from the domestic rather than the international pharmaceutical trade; and that doctor shopping, pharmacy hopping, theft or diversion from wholesalers and retailers, and diversion from treatment programmes, are major supply drivers for the illicit market.⁴⁹

⁴³ Quigley, P., Usher, C., Bennett, K. & Feely, J. (2006). Socioeconomic influences on benzodiazepine consumption in an Irish region. European Addiction Research, 12(3), 145-150.

⁴⁴ Benzodiazepines are commonly prescribed to Dublin's disadvantaged. Sunday Times, 9 July 2006.

⁴⁵ Health Research Board (2008). DrugNet Ireland, 26, Summer.

⁴⁶ National Advisory Committee on Drugs (2007). Drug Use in Ireland and Northern Ireland: The 2002/2003 Drug Prevalence Survey – Sedatives, Minor Tranquillisers or Antidepressants.

http://www.nacd.ie/publications/Bulletin6_STAD.pdf (Accessed 15 April 2008).

⁴⁷ Cormier, R.A., Dell, C.A. & Poole, N. (2004). Women and Substance Abuse Problems. BMC Women's Health, 4(1). http://www.phac-aspc.gc.ca/publicat/whsr-rssf/pdf/WHSR_Chap_7_e.pdf (Accessed 15 April 2008).

⁴⁸ Ballymun Youth Action Project (2004). Benzodiazepines – Whose Little Helper?

http://www.nacd.ie/publications/BYAPbenzosReoprt.pdf (Accessed 15 April 2008).

⁴⁹ Nicholas, R. (2002). The Diversion of Pharmaceutical Drugs onto the Illicit Market. Australasian Centre for Policing Research. http://www.acpr.gov.au/pdf/drugs/Diversion%20of%20pharm.pdf (Accessed 22 April 2008)



In recent years, the problem of benzodiazepine misuse appears to have been greater outside than inside the capital. In 2002, in the old ERHA, which served Dublin, Kildare and Wicklow, benzodiazepines were the main problem drug reported in 0.7%, or 42 out of 6,248 cases. In the rest of the country, this figure was 2.7% or 64 out of 2,328 cases. By 2005, for the whole country, benzodiazepines were the main problem drug in 1.5% or 77 cases of 12,400 problem drug users who were treated that year. 51

The Western Region Drugs Task Force has noted that the relatively low number of polydrug and opiate misusers in Galway, Mayo and Roscommon means that if there is a benzodiazepine misuse problem of any notable size, it is more likely to be found in the general population.⁵²

Without doubt, there is indeed such a problem within the general population. A study by the National Institute of Pharmacoeconomics, which analysed prescription data gathered by the PCRS in 2004, found that for all health regions, between 38% and 49% of medical card patients prescribed benzodiazepines received this medication for more than four weeks. In the case of counties Galway, Mayo and Roscommon, 16% were receiving maintenance benzodiazepine therapy for more than three months. A similar pattern was found with private patients. These results clearly show that the prescribing of benzodiazepines for more than four weeks continues in contravention of the best practice prescribing guidelines.⁵³

Some experts have attributed the continued escalation in minor tranquilliser and sedative prescribing to an almost complete absence of counselling facilities for medical card patients. Because of this, they say, doctors have little option except to prescribe extensively and perhaps inappropriately.⁵⁴

Concluding Comments

- Benzodiazepines and non-benzodiazepine hypnotics, or minor tranquillisers and sedatives as they are more commonly known, are psychoactive drugs that have proven, documented therapeutic benefits when taken as recommended.
- However, despite the documented evidence of health risks from incorrect usage, particularly the dangers of tolerance and dependence, they continue to be prescribed and used extensively. In Ireland, spending on minor tranquillisers and sedatives through the main community drug refund schemes has doubled from €14.01m in 2000 to €26.42m in 2007, with total spend for the period standing at €168.9m.
- The Department of Health and Children issued good practice prescribing guidelines for clinicians in 2002 to encourage more rational usage and prescribing. The key questions for this study are whether these had any impact, if so for how long, if not which population groups are being adversely affected, and what would be the right steps to remedy the problem.

⁵⁰ DCRGA (2005). Mid-Term Review of the National Drugs Strategy 2001-2008: Report of the Steering Group. Dublin: Department of Community, Rural and Gaeltacht Affairs.

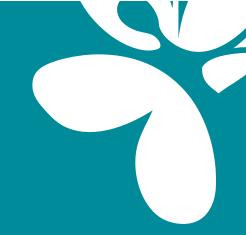
⁵¹ DCRGA (2007). Report of the Working Group on Drugs Rehabilitation, National Drugs Strategy 2001-2008. Dublin: Department of Community, Rural and Gaeltacht Affairs.

⁵² WRDTF (2006). Shared Solutions – First Strategic Plan of the Western Region Drugs Task Force. Galway: Western Region Drugs Task Force.

⁵³ National Centre for Pharmacoeconomics (2006). Utilisation of benzodiazepines on the General Medical Services (GMS) Scheme, 2004. www.ncpe.ie (Accessed 8 May 2008).

⁵⁴Lack of counsellors leads to over-reliance on benzodiazepine prescription. Sunday Independent, 12 Dec 2004.

In Ireland, spending on minor tranquillisers and sedatives through the main community drug refund schemes has doubled from €14.01m in 2000 to €26.42m in 2007





Statistical Analysis



Introduction

We noted previously that the relatively low number of polydrug and opiate misusers in the western region would tend to suggest that if there is a benzodiazepine misuse problem of any notable size, it is more likely to be in the general population. ⁵⁵ We also noted the findings of the last significant study of prescribing, carried by the National Centre for Pharmacoeconomics (NCPE), which found that 16% of people with medical cards in the western region were being maintained on minor tranquillisers and sedatives for longer than three months. A similar pattern was found with private patients, demonstrating that prescribing for longer than four weeks is the norm. ⁵⁶

The NCPE study was limited in its scope in the sense that it analysed one year of prescription records. We have looked back over a longer timeframe, starting in January 2000, three years before the guidelines, and finishing five years after, in December 2007. The Primary Care Reimbursement Service supplied these records (this is the drug cost reimbursement arm of the Health Service Executive).

We procured electronic spreadsheets of the prescription records held by the PCRS under the three main community drug refund schemes, for counties Galway, Mayo and Roscommon for the period 2000-2007. Each record has a standard set of fields: the patient's number (but not their name), age, gender, drug prescribed e.g. Diazepam, strength or form, quantity supplied and number of prescriptions that year. The GMS files have one extra field: the prescriber number (not their name).

We also examined figures from the Health Research Board, which maintains a national database on those presenting for treatment for problem drug use. The National Drug Treatment Reporting System paints an interesting picture of those coming forward – their number, age, gender, nationality, place of residence, accommodation and employment status, drugs taken, and whether this is a major or minor problem drug.

The most remarkable contrast between the HRB and HSE data relating to the three western counties is the small number presenting for treatment for addiction by comparison with the much larger number taking minor tranquillisers and sedatives. Between 2001 and 2006, just 114 clients residing in the HSE Western Area sought treatment where minor tranquillisers and sedatives were a problem drug. According to the HSE's prescription records, however, slightly less than 90,000 individuals were prescribed them from 2000 to 2007, many on a repeat basis. In other words, the high prescription rates and the low levels of treatment must mean there is substantial unmet treatment need, a lack of a continuum of supports, and a major hidden problem of prescription drug addiction in the region.

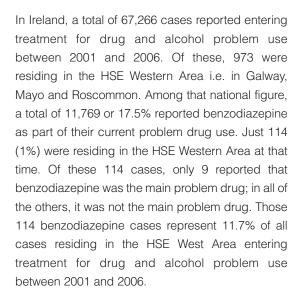
HRB Data: Problem Use of Minor Tranquillisers and Sedatives

The Health Research Board has supplied aggregated data compiled through statistical returns made by certain healthcare professionals working in the field of addiction. These include Level 1 GPs (these are doctors working in the community who have specific training, and authorisation to prescribe Methadone), all Community Substance Misuse Counsellors, Galway Methadone Clinic, Coolmine Therapeutic Community, Rutland Centre and Mater Dei Teen Counselling. All submit quarterly figures to the HRB on a standardised reporting form.

It should be borne in mind that the figures that follow give only a partial picture of the overall picture of addiction. The reason is that particular service providers have commenced making statistical returns at different times. The HSE Drug Service and others, for example, have been making returns for most or all of the period, but the Addiction Service in HSE Mental Health only began making returns for the first time in 2008. In addition, the general GP population does not make returns, yet it is in general practice that a potential addiction may first become apparent.

⁵⁵ Western Region Drugs Task Force (2006): Shared Solutions, op. cit.

⁵⁶ National Centre for Pharmacoeconomics (2006): 'Utilisation of benzodiazepines on the General Medical Services (GMS) Scheme, 2004' www.ncpe.ie (Accessed 8 May 2008).



In essence, less than 1 in 5 of all those entering treatment nationally did SO because benzodiazepines were part of their problem drug use. Only 1 in 100 of those with problem benzodiazepine use were residing in the HSE Western Area at that time; and less than 1 in 10 of those reported benzodiazepine as their main problem drug. In other words, very few people from three counties enter treatment the benzodiazepine problem use; and even fewer regard benzodiazepine problem use as their main drug or addiction problem at all.

According to the HRB data for the 114 cases treated for benzodiazepine problem use:

- Counties Galway, Mayo and Roscommon (which together have slightly less than 10% of the total population of the State) had slightly less than 1% of the number of all cases treated where benzodiazepines were reported as a problem drug.
- Of this 1%, benzodiazepines were the main problem drug in nine cases (8%). Opiates were the main problem in three-quarters.
- Almost 60% of treatment episodes were from people living in Galway, 26% in Roscommon and 14% in Mayo. This is a particularly interesting finding, as Mayo has 30% of the region's population, while Roscommon has just 14%.

- Diazepam accounted for more than half of cases where a specific, named minor tranquilliser or sedative had been identified.
- Almost two-thirds had been treated previously.
- At least two-thirds were male; and nine-tenths were Irish.
- Almost 85% were aged from 20-39 years; around 4% were 17 years or less; and less than 2% were over 50 years.
- Nearly 60% lived in stable accommodation;
 25% were either homeless or living in "unstable" accommodation; and over 13% were institutionalised in a prison or hospital.
- Around three-quarters were unemployed.
- One in five were 14 or younger when they left school; and half left school at 15 years or older.
- Polydrug use was common. All but three reported using more than one drug.
- For the nine cases where benzodiazepines were the main problem drug reported, the minor problem drug was an opiate in three cases, cannabis in five, ecstasy in two, and alcohol in one case.⁵⁷
- The numbers were evenly split between those who had injected benzodiazepines and those who had not; though four out of five said they had not injected them in the past month.

Before drawing conclusions based on these data, it is worth noting a key contextual factor. This is that people who present to a GP with an addiction to minor tranquillisers and sedatives are more likely to have a referral, if this is deemed necessary, to the HSE Mental Health Service (or to a not-for-profit provider such as Hope House) than they are to the HSE Drug Service. Again, it's worth noting that the Drug Service has been making statistical returns to the NDTRS for some years, but the Addiction Service in Mental Health has only recently begun doing so. Thus, it will be some years yet before a more complete picture of those coming forward for treatment can be drawn.

⁵⁷ Totals under this issue are the total number of cases for which there is at least one additional drug. Each of those cases may have several additional drugs, hence the total is higher than the number of cases.

Put another way, the current NDTRS figures relate to the relatively small number of people accessing the Drug Service for treatment for the misuse of illicit drugs, which may include the misuse of minor tranquillisers and sedatives, and which may or may not have been prescribed, than they do to the profile of those in the population at large, who may

 First, there are very few people presenting for treatment for an addiction to minor tranquillisers and sedatives compared to the numbers of people who have been prescribed them.

be misusing these drugs. That said, there are four

interim conclusions we may draw:

- Second, the pre-eminence of Diazepam suggests it is among the most commonly prescribed of the minor tranquillisers and sedatives; and one leaking in significant amounts to the street.
- Third, males make up the majority of cases, though as we will see shortly, women get the most prescriptions.
- Fourth, the majority presenting are under 40, though as we will also see, most prescriptions go to people over 40.

HSE Data: Prescriptions for Minor Tranquillisers and Sedatives

The HSE's Primary Care Reimbursement Service (PCRS) is responsible for administering the state-funded community drug refund schemes. The three principal schemes together pay some or all of the cost of the prescription drugs for close to three-quarters of the State's population.

We looked at all prescription records for the three main reimbursement schemes from 2000 to 2007: General Medical Service for 'medical card' patients, Drug Payment Scheme for 'private' patients, and Long Term Illness Scheme for people with certain long-term medical conditions.

The analysis covered just under 90,000 individuals and just over 1.5 million prescriptions.

The prescription record set permits analysis of a range of factors, including age, gender, prescription frequency, drugs dosages and quantities prescribed, and drug costs and professional and fees paid. It also enables a fairly accurate estimate to be made of the proportion of the population at large that is taking a drug, using a recognised international measure.

With regard to costs and fees, the record set reveals that just under €169m was reimbursed under the three main community drug refund schemes for the whole country between 2000 and 2007. Almost €90 million of this was for drug ingredient costs and the remaining €79 million was for professional fees. The distribution, by scheme, of the total spend was 78% in the GMS, 21% on the DPS and 1% in the LTI. In the GMS, the amount paid in fees exceeded the cost of drugs for the first time in 2007. In the DPS, that happened for the first time in 2006.

The 'Defined Daily Dose' (DDD) is an accepted international measure of drug utilisation. It is the assumed average maintenance dose per day for a drug used for its main indication in adults. However, since prescribing patterns differ across countries and the amount prescribed depends on individual characteristics and pharmacokinetics (absorption, distribution, metabolism and excretion of a drug), DDD is seen as a technical value, a close approximation of the average of the actually used dosages.⁵⁸

DDDs are expressed per 1,000 of the population per day. However, the big three schemes administered by the PCRS not cover the entire population, so the unit of expression for the data is DDDs per 1,000 of the scheme population per day. The population is usually considered to be individuals over the age of 15. Although we include children in the count of individuals and



prescriptions, we do not include them in the DDD calculations for individual drugs as this would distort the estimate of usage in the adult population.

We chose the period from 2000 to 2007 in order to look at trends in usage and prescribing over a period of time; and to see what effect, if any, the good practice prescribing guidelines may have had. We expected to find a pattern of increased usage up to the time the guidelines were issued and some reduction over time after that. The data suggest, however, that the guidelines have had little or no impact.

The detailed statistical tables are contained in Appendix 1, but the key findings are presented here.

Number of Individuals

- Some 89,721 distinct individuals in counties Galway, Mayo and Roscommon were prescribed minor tranquillisers and sedatives between 2000 and 2007.
- Almost 80% of these individuals were people who were entitled to see their doctor and to get their prescriptions free of charge (GMS), while the vast majority of the remaining 21% were people who paid the doctor and pharmacist but were entitled to claim a refund on the cost of their prescriptions (DPS).
- 3. About 42% were male and 58% female.

General Profile

- 1. The numbers of people prescribed minor tranquillisers and sedatives in all three schemes has increased year on year up from slightly less than 25,000 in 2000 to a little over 33,000 in 2007.
- 2. Looking at averages across the period:
 - a. Around 54% of those prescribed minor tranquillisers and sedatives were over the age of 65. As a general comparator, only 12.5% of the population of the three counties was aged 65+ in 2006.
 - b. The percentage of males was 38%, and the percentage of females 62%. As a general comparator, the population of the region was evenly split between males and females in 2006
 - c. Some 49% were from Galway, 34% from Mayo and 17% from Roscommon. As a general comparator, the population distribution was 56% in Galway, 30% in Mayo and 14% in Roscommon in 2006.
 - d. The average percentages of people in the GMS and DPS were 52% and 46% respectively for the period from 2000 to 2007.
- In summary, women, older people and people on low incomes are over-represented in the averages, while men and people on higher incomes are correspondingly underrepresented.



Number of Prescriptions

- The total number of prescriptions written in the three counties increased every year between 2000 and 2007.
- 2. People aged 65 or more, who comprise just 12.5% of the population of the region, got close to two-thirds of all prescriptions.
- Women, who comprise around half the population of the region, also got close to twothirds of all prescriptions.
- 4. Some 1.5 million prescriptions were reimbursed between 2000 and 2007. Almost 88% of prescriptions went to people with medical cards, while almost all of the remaining 12% of prescriptions were for people in the DPS
 - a. Across all three schemes, the top five drugs, measured in descending order of number of prescriptions, were Temazepam, Diazepam, Zopiclone, Alprazolam and Bromazepam.
 - In the GMS, the top five drugs were Temazepam, Diazepam, Alprazolam, Zopiclone and Bromazepam.
 - ii. Four of the top five in the GMS were also in the top five of the DPS, albeit in different rank order, with Bromazepam displaced from fifth position by Zolpidem, which joined Zopiclone as the second and second most popular nonbenzodiazepine hypnotic on the list of most prescribed minor tranquillisers and sedatives.

Drug Usage

- 1. The Benzodiazepine Committee used the Defined Daily Dose measurement system to arrive at a rough estimate of the proportion of the population treated daily with minor tranquillisers and sedatives. (It gave the example that a figure of 10 DDDs per 1,000 inhabitants per day would indicate that the amount used in terms of one normal adult dose per day would be given to 1% of the population on average). We followed the same approach in this study.
- 2. In the GMS, usage, as measured in Defined Daily Doses / 1,000 / Day of the scheme population fell by 2% in 2001, a full year before the good practice prescribing guidelines for clinicians were published, but increased every year except one thereafter: up 15% in 2002, up 7% in 2003, up 7% in 2004, up 4% in 2005, down 2% in 2006, and finally, up 3% in 2007.
- 3. In 2000, around 7.5% of the GMS population of the three counties were using minor tranquillisers and sedatives. By 2007, this had increased to slightly less than 10%. In other words, the good practice guidelines had little or no effect in the GMS and a pattern of increased prescribing became more deeply embedded.
- 4. In the DPS, usage, as measured in Defined Daily Doses / 1,000 / Day of the scheme population decreased four years in a row (2001 to 2004) but fluctuated in both directions in the following three years. The reductions were 7%, 13%, 10% and 1% between 2001 and 2004. Usage increased by 20% in 2005, fell by 1% in 2006 and rose by 8% in 2007.
- 5. In 2000, around 1.5% of the DPS population of the three counties were using minor tranquillisers and sedatives. By 2007, this number was largely unchanged, albeit that some significant reductions were achieved in a number of the intervening years. From this we



may conclude that the good practice guidelines may have had some positive effect, albeit in a context where usage in the DPS was small to begin with, and much smaller by contrast with the GMS.

- 6. The number of DDDs per 1,000 per day of the GMS population has been a significant multiple of the number of DDDs per 1,000 per day of the DPS population in all years. The multiple was 5 in two years, 7 in four, 8 in one, and 9 in one year. This suggests that people in the GMS get from 5 to 9 times the number of DDDs as people in the DPS.
- 7. The quantity of doses per form i.e. the number of DDDs per prescription form appears to be well within the good practice guidelines. In the GMS, the average of DDDs from 2000 to 2007 is 21.54 days supply; while the figure in the DPS is slightly lower, at 20.08 days.

Long-Term Usage and Prescribing

- 1. However, in terms of those who are actually being prescribed minor tranquillisers and sedatives, as opposed to the numbers who are estimated to be using them, there are serious issues with regard to long term usage and long term prescribing. We defined the former as the number of individuals in the medical card and the private schemes who are prescribed > 56 DDDs (two months supply or more) per year for anywhere from two to eight consecutive years. We defined long term prescribing as the number of doctors who prescribe > 56 DDDs (two months supply or more) per year of the same drug to the same individual for anywhere from two to eight consecutive years.
- This analysis identified that there is a significant number being prescribed minor tranquillisers and sedatives for long periods - longer than the maximum recommended times. Taking the GMS, DPS and LTI together, a total of 15,935

- people, or nearly 18% of all individuals, had been prescribed minor tranquillisers and sedatives for two months or more at least once for up to eight consecutive years. Clearly this goes far beyond the maximum recommended period of a one-month, once-off prescription favoured in the good practice guidelines. GMS clients i.e. people in the state-funded scheme account for almost nine out of ten of those affected; and they outnumber those in the private, pay-as-you-go scheme by a factor of between 5 and 18 times.
- 3. This analysis also identified a significant number of doctors prescribing to some patients for protracted periods. The highest number prescribing two months supply or more at least once in consecutive years, was for two consecutive years (389 GPs) and the lowest number was for eight consecutive years (159 GPs). In all, there were 415 GPs who prescribed in protracted fashion, as defined, at least once during the period under study here.



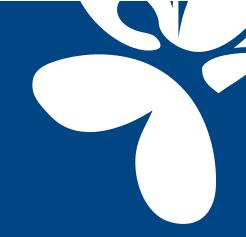
Concluding Comments

One of the most striking contrasts between the HRB and HSE data sets for the western counties is the relatively insignificant numbers of people presenting for treatment for problem tranquilliser and sedative use, when compared to the number who are taking these drugs, often on a long-term repeat basis.

Moreover, on every significant yardstick – number, age, gender, daily usage, and long term usage, it is clear from the prescriptions data that minor tranquillisers and sedatives are being directed to those with the least means and the most problems, to the very people who depend most on the public health service.

At one level, the escalating levels of prescribing may be seen as the only viable response by prescribers in a context where treatment facilities are nowhere near adequate to cope with all who might wish to access treatment to break an addiction. At another level, however, there is a deeper question of how long the current situation of escalating prescribing and inadequate service provision should be allowed to continue, and what innovations could be attempted to address the problems.

These issues are addressed in the next chapter.





Focus Group and Health Personnel Interviews



Introduction

In this chapter, we present the views of service providers who have a role in the treatment of those misusing minor tranquillisers and sedatives, and who are in significant contact with these individuals and their families. We also present the perspectives of a small number of people who are recovering from an addiction to these drugs. In that context, we also took the opportunity to speak with one person recovering from an addiction to Codeine, which though beyond the scope of this study, is a drug known to be widely misused and of increasing concern to the health authorities.

The intent of this chapter is to document the experiences of service providers who are dealing with clients presenting with an addiction to minor tranquillisers and sedatives, their perceptions of the root causes of the problem, and their preferences for treatment and preventive services. The views and experiences of recovering addicts complete the picture. In general, qualitative research is invaluable for tapping knowledge and experience that is not being documented in quantitative form.

This chapter begins with a summary of the good practice prescribing guidelines. These are aimed at ensuring the proven therapeutic benefits of minor tranquillisers and sedatives are gained without their known drawbacks. It continues with an outline and discussion of a health promotion perspective on addiction, which offers a suitable framework for locating where responsibility lies for the crisis we appear to have with the misuse of minor tranquillisers and sedatives, and identifying where responsibility rests for tackling it. The health promotion model sees individual choice and/or prescriber practice, at once, as part of the solution and part of the problem; and the service providers' best response as being directed to providing a continuum of care and support, with a strong emphasis on prevention. The chapter then outlines the experiences of a number of people who are recovering from an addiction to minor tranquillisers

and sedatives; and concludes with the perspectives of a number of healthcare professionals working in the field of addiction.

Methodology for the Qualitative Research:

The recovery group was comprised of six people who attended a specially convened Focus Group at the Hope House Addiction Treatment Centre in Foxford, Co Mayo. The meeting lasted just over two hours. Separately, face to face interviews were carried out with 6 Addiction Counsellors in HSE West Mental Health, and with 10 Substance Misuse Counsellors in HSE West Drug Service. The duration of each of these varied from 45 to 90 minutes and the average was an hour.

Good Practice Prescribing Guidelines for Clinicians

The Good Practice Prescribing Guidelines for Clinicians outline the steps which doctors are expected to take before starting a course of minor tranquillisers and sedatives, when prescribing them for the first time, and when managing patients who are dependent or getting a continuing prescription.

The first step is to take a full patient history, including use of alcohol, and licit and illicit drugs. The next is to inform the patient of the side effects of minor tranquillisers and sedatives and to offer an information leaflet. The doctor should then consider and, if possible, treat any underlying cause for which these drugs may be prescribed; consider other services and alternatives; and consider delaying prescribing until a later visit.

When prescribing for the first time, the guidance is as follows:

- Start with the lowest recommended dose.
- · Prescribe for no longer than four weeks.
- Use phased dispensing where possible.
- Ensure patient-prescriber agreements are documented.



 Ensure clear, effective, speedy communication between prescribers within and between services.

duration of treatment.

For dependent patients or patients in receipt of a continuing prescription, the doctor is recommended to act as follows:

- Issue small quantities (a week's supply at most).
- Review regularly (usually monthly).
- Use a long-acting benzodiazepine in dosages no higher than Diazepam 5mg three times daily or equivalent.
- Use signed consent forms where appropriate.
- Make the patient aware of the long-term risks, encourage them to withdraw, offer a detoxification programme at least once a year, and document all such communications.
- Seek specialist advice before prescribing to patients who have become dependent through substance misuse.

Health Promotion Context

Assuming that appropriate use of these drugs means use to achieve a health and social gain, it follows that any dilution of the gains from their continued use for a reason other than the initial clinical need, or in a dose or to a direction that has not been prescribed, or for a duration longer than recommended maximum time, represents inappropriate use.

In theory, the good practice guidelines should facilitate the safe and effective use of minor tranquillisers and sedatives. As Butler (2002) points out, however, "the practice of using psychoactive drugs for recreational purposes or as a means of coping with stress or tedium is ancient and almost universal, although knowledge of the negative consequences of such

drug use is equally ancient and well-established. Health policy making in this sphere is enormously complex, since it has to deal with abstract moral debate about drug use, popular opinion, economic and other interest group conflict, and of course research developments in the biomedical and social sciences." ⁵⁹

We noted earlier that a major issue with minor tranquillisers and sedatives is that they are widely available and misused, due to poor prescribing by some doctors and/or decisions by individuals to take them incorrectly. We will see later that opiate users often resort to benzodiazepines if they can't access opiates, or if they feel the need for a 'lift' as they come 'down' from an opiate. Concern is also growing in the HSE West Drug Service that minor tranquillisers and sedatives are being used by younger recreational drug users to 'manage the crash' from stimulants or as a mixer with alcohol.

Those for whom minor tranquillisers and sedatives are prescribed may have a benign view, or no view at all, of the downsides of inappropriate use. They may not be fully aware of the risks, especially tolerance and dependence. They may not understand the risks even after being warned. They may believe the drugs do more good than harm, even though the benefits no longer occur. They may have such a trust in their doctors that they do not question why their prescription is being continued long after a decision might have been taken to discontinue it, or why they may be asking for it to be repeated.

This research seeks to explain the problem of the misuse of minor tranquillisers and sedatives in a health promotion context. It shows that individual decisions by patients and prescribers have been instrumental in maintaining a pattern of misuse; and that public policy and health authorities have failed to address inappropriate use by controlling pricing, prescribing and distribution.



The evidence also points towards the conclusion that public policy has failed to reorient health services for treating benzodiazepine addiction, by putting the focus on prevention and delivering a continuum of care that includes medical intervention (where necessary) and ongoing supports that help the individual to acquire or develop personal skills to cope with a life crisis, for which minor tranquillisers and sedatives might otherwise be taken.

Ashton (2002) identifies three categories of alternative techniques:

- Psychological, which consists of behavioural therapy that aims to replace anxiety-related behaviours with better adapted behaviours; and cognitive-behavioural therapy, which teaches individuals to understand their thinking patterns so they can react differently to anxietyprovoking situations.
- Complementary Medicine, which includes acupuncture, aromatherapy, massage, reflexology and homeopathy.
- The final category includes exercise and various other techniques including sports, yoga and meditation.

The psychological techniques have been formally tested and give the best long-term results; the effects of the complementary techniques tend to be short-lived; and some people respond well to the other techniques. ⁶⁰

Adverse Effects of Minor Tranquillisers and Sedatives

Before recounting the stories of recovering addicts, it is useful to restate the key points that have been documented with regard to benzodiazepine addiction in the UK. These echo the experiences of most people in our Focus Group, and provide

support for the view that minor tranquilliser and sedative misuse is best seen in a health promotion context.

Addressing a House of Commons Health Committee in 1999, one expert summarised the issues that led her to conclude that minor tranquillisers and sedatives "contribute a considerable unsolved health problem":

- They have the potential to cause dependence when taken for longer than four weeks, even in prescribed therapeutic doses.
- Significant numbers of people suffer withdrawal symptoms when trying to stop after taking excessive doses for many years.
- The incidence of protracted withdrawal symptoms is high.
- There is a continuing high number of long-term prescribed users despite expert advice that prescriptions for these drugs should be limited for two to four weeks.
- There is a lack of knowledge among doctors generally about withdrawal symptoms and withdrawal methods.
- There is a scarcity of patient advice and of support centres.
- There is evidence of a growing problem of minor tranquillisers and sedatives misuse among polydrug users.

Recovering Addicts' Perspectives

A Focus Group was held with six recovering addicts at the Hope House Addiction Treatment Centre in Foxford, Co Mayo, to hear their experiences. Hope House is one organisation dedicated to helping people recover from alcoholism and other addictions. Its services



include residential and continuing care for adults, and support programmes for families. Its philosophy is to treat alcohol addiction, drug dependency and compulsive gambling as chronic, progressive diseases. The focus is on total abstinence from mood-altering substances and improved quality of life for all.

The five female participants had all been addicted to a minor tranquilliser or sedative, which was their minor drug problem. Alcohol was the major problem in all cases. The male in the group was recovering from an addiction to Codeine. Although this research is concerned with minor tranquillisers and sedatives, the experience of the male participant is presented as a separate section at the end of the report, as his story echoes the experiences of those who have been addicted to minor tranquillisers and sedatives, and indeed echoes the increasing concerns among healthcare professionals about rising levels of addiction occasioned by the explosion in sales of over-the-counter combination products containing Codeine.

The Focus Group session was recorded with a digital recording advice, which was played back by the author when writing this chapter. The recording was done with the knowledge and approval of the participants. A commitment was given that the recording would be destroyed when the research was completed and the final report published. This has been done.

Anne's Story

Anne is married and recovering from an addiction to alcohol and minor tranquillisers. She has used Diazepam (Valium), Lorazepam (Ativan), Alprazolam (Xanax), 'sleeping tablets', Solpadeine, and the more potent preparation Solpadol (a prescription-only painkiller containing 30mg of Codeine per tablet as opposed to the 8mg of Codeine in Solpadeine).

She recalls taking up to 50mg of Alprazolam a day, along with antidepressants and sleeping tablets,

though she says she took care to get separate prescriptions for the different drugs to avoid detection.

Anne says she started drinking while at college. She began getting panic attacks and was given Valium by injection and a prescription for the tablet form of the drug on her first visit to the doctor. "And that's how it started", she says. "I swore I'd never be without it again."

She continued her prescription after college, taking it as directed for few years before increasing the dose to cope with general life issues. Anne admits she "did the rounds" of surgeries and pharmacies locally and farther away. Her "terror" was that she would accidentally go to one where she had recently been. She kept a diary of the places she had visited, in order to avoid being caught. "It was like a crossword puzzle", she says. "Where would I go? How many would I need? What would I do if I ran out? There was always a panic burning in the back of my head."

Anne recalls that counselling was never offered whereas a prescription always was, though she admits she would have "lied through [her] teeth" to get a prescription because she "had to have them. It was that or die." Living and working in a small community, she consulted the same doctors many times, but believes her status was the reason she was never questioned about her continued requests for a prescription.

Anne cannot recall any instance where she was advised by a doctor that minor tranquillisers and sedatives are addictive and should only be taken for short periods: "nobody ever said that to me." She found that if a prescription was written up once, there was never any problem in getting it repeated, though she did encounter a particular difficulty on one occasion in one town because the dispensing pharmacist was convinced that the dose and directions had been entered incorrectly on the prescription form.

She realised "the game was up" when doctors finally became reluctant or refused to give her a prescription; and her family witnessed her health and appearance diminish as a result of her addiction.

Anne was quite upfront in pointing out that she did not attach any blame to any doctor who had prescribed minor tranquillisers and sedatives for her. This was her addiction and she herself was responsible for letting it continue for so long. However, she questions whether healthcare professionals have enough training to recognise and respond to the signs of addiction.

That prompted a general discussion in the group. In summary, the consensus was that a doctor may be aware a patient is addicted to minor tranquillisers and sedatives but continues to prescribe anyway, because they have doubts about the patient's ability to cope without the drugs, or doubts about their own ability to wean the patient off them, or because they may not know enough about or even believe in alternative therapies themselves.

Mary's Story

Mary is married and recovering from an addiction to alcohol and minor tranquillisers. Mostly she has used Temazepam (Euhypnos, Nortem, Normison) but she has been prescribed Alprazolam (Xanax).

She discovered Temazepam when she took one from a relatives' prescription in the belief it would cure a hangover she had — "and it gave me such a high", she says, "that I thought this was the answer for me. I used to suck out the liquid stuff and leave the shell for him."

Mary was caring for another relative at the time and requested the doctor to include Temazepam on the prescription. This became her supply. However, she soon felt compelled to find another way of getting them as the doctor advised this other relative to stop taking them.

Mary worked in an environment where she was able to access minor tranquillisers and sedatives with relative ease. She became so preoccupied with Temazepam that she would have developed a "headache" by the time she got to work; and that provided the pretext go unsupervised for a couple of Paracetamol. "That went on and on for a few years and I could not survive a day without fistfuls — and I mean fistfuls." Mary says she would take four or five Temazepam at a time having stolen up to 15, but after "a few hours" needed more. She even resorted to licking the tissues in which she hid the drugs so as to get every last trace.

Mary later obtained a prescription for Alprazolam. However, she continued taking Temazepam illicitly and even resorted to photocopying her prescriptions. She says she continued with this lifestyle for as long as she could but eventually, she collapsed and was admitted to hospital.

She believes she used her relatives' prescriptions for up to three years. Then she got her own prescription but continued to top up in the usual way.

Mary recalls that she felt the drink wasn't working whereas the tablets were and that when she came to Hope House, she thought it would be possible for her to continue taking minor tranquillisers while being treated for alcohol addiction. She says she had "no understanding of tablets" but felt that they were "blotting out pain and problems... stuff I wasn't talking about or dealing with. Life revolved around tablets. I'd go through iron to get them. I'd lie, steal, anything." She acknowledges that alternative supports were never offered, but accepts also that she wasn't interested in hearing about them. In her mind the problem was at home or somewhere else.

This prompted a general discussion in the group about ingenuity of addicts in getting a minor tranquilliser or sedative prescribed and repeated. There was a consensus that a true picture of the nature and extent of a person's addiction is rarely given at first assessment, and that this underlines



the need for healthcare professionals to be aware of and alert to "the whole picture of addiction". There was also a consensus that alcohol is often the primary addiction and that while certain minor tranquillisers are valuable for detoxification, the fact that clients may find them so beneficial means a potential new addiction may develop in some cases.

One participant described GPs as the "custodians" of good prescribing, but felt that there is "no consequence against them for doing the wrong thing. None." Others felt GPs need to make themselves aware, and need to press patients to be honest with them (e.g., about a possible addiction to alcohol), and that they should look critically at such issues before prescribing.

Della's Story

Della's primary addiction is to alcohol and she was given a prescription for Alprazolam (Xanax) while hospitalised. However, she only used it for about six months, as she believed alcohol was the "cure" for her panic attacks. She recalls that she got "terrible blackouts" and went "off [her] head" if she mixed alcohol with her prescription.

When Della was using Alprazolam, she felt she had to take it just to ward off the panic attacks she knew she would have from being deprived of alcohol. However, she felt they only increased her anxiety, and gives this as the reason why she did not take them for longer.

She says she had no idea at the time what she was getting "the little white tablet" for. She used three to four a day under medical supervision and felt they were "easily got" because the doctor knew she was trying to stay off alcohol. She says the GP never spoke to her about their addictive potential or the desirability of using them for a short time only.

Della feels Alprazolam got her "through the gaps" while she was abstaining from alcohol, but says she had no knowledge or awareness at the time how addictive it could become: "no-one told me". She believes that awareness of the issues has improved among doctors since she went into recovery, but feels she could "wrangle them" if she wanted.

Kay's Story

Kay is married and recovering from an addiction to alcohol and the non-benzodiazepine hypnotic, Zopiclone. She also worked in an environment where she could access them easily. Kay was quite frank in admitting that she made a deliberate, conscious decision to take Zopiclone – "I had no real problems in my life, only a pain, nothing that wouldn't have gone away" – though she says she was unaware at the time of the long-term effects.

Although Zopiclone was her preferred choice, she would take a benzodiazepine if that were not available. She believes she was dependent soon after her first dose. It gave her a very relaxed feeling that "things are going to be alright and that's exactly how I felt. For the next four years, I probably slept my life away. That's all I wanted to do, go to bed, turn off the lights, pull the curtains and don't wake me'til another tablet is due."

Kay recalls that her first prescription was written for three months but she used it up before then and had no trouble getting a repeat prescription or accessing a supply in other ways.

She describes how addiction took over her life: "I nearly lived to go to work to get the tablets", she says. "It was relentless. They never left my head from morning until night. It was total torture really." In the end, she didn't even count her dose, but recalls that five tablets "would not even have knocked me out. If I woke up in the middle of the night and thought there was a remote chance I wouldn't go back to sleep, I'd take another

one. In the middle of the day, when the kids were at school – oh I'd get all my housework done, my jobs done, so everything would look like it was under control, I'd have the dinner cooked – I'd take a tablet, pull the curtains, get into bed and set the alarm clock 'til it was time to pick them up from school. It was the purpose of every minute of every day."

The tipping point was "a mental meltdown". She told her husband she was "drinking too much and taking a ball of tablets ... I didn't know how I'd live without them but they'd stopped working anyhow. That's why I ended up having to go back to mix the alcohol with them ... I should have been dead – the amount I was taking."

Kay admits that her GP did offer a specialist referral but she herself "wasn't willing to listen. It's not that it wasn't said. I just didn't give them room to expand on it." The GP made her aware of Hope House and she opted to do 'cold turkey' rather than tapering down. "I thought I was going to die", she says. "I had pains in my chest. I had pains in my head. I couldn't even go into the shower. It was desperate. I didn't eat for two weeks. It was awful. I couldn't even describe it. Lying in bed and trembling and shaking, not knowing was there ever going to be an end to it."

She feels there are means other than minor tranquillisers and sedatives for solving problems and she expressed the view, which was strongly supported by others, that there should be facilities to "detox with dignity".

Eileen's Story

Eileen is married and recovering from an addiction to alcohol and minor tranquillisers. She has a history of panic attacks and though she didn't want to drink, she did so because she got "frightened". Her GP initially prescribed Bromazepam (Lexotan) for a very short period and advised her to come for a further consultation when the prescription was

used up. "That was my route into tablets", she says. She took the drug "on and off" for a year and could use a month's supply in two weeks.

Eileen describes herself as a "binge drinker", but even before she was prescribed minor tranquillisers, she had "discovered" a cough linctus containing Codeine. When she wasn't drinking at that stage, she was taking the cough bottle instead. She says she didn't know anything about Codeine at the time; only that she needed the Benylin with the "blue stripe".

During a detoxification, she was prescribed the benzodiazepine Chlordiazepoxide, a treatment for alleviating alcohol withdrawal symptoms. Her greatest concern then was whether she would be getting a prescription for it when she went home. Eileen was prescribed Alprazolam on discharge. A three-month supply could be used in a month. She would get a repeat by "lying; saying I lost my prescription; going to different doctors." She found that Alprazolam tended to suppress the anger that normally accompanied heavy drinking. Eileen was taking alcohol and minor tranquillisers together before she came to Hope House.

She says no alternatives were offered to her at any time. She believes there needs to be a mix of responses to address the issues of individuals taking addictive prescription drugs inappropriately, of doctors prescribing them for longer than may be necessary, and of the public in general not being prepared to work harder at sorting out their problems without resorting to drugs. She worries that people put their faith and trust in doctors to do what's right without knowing enough about addictive prescription drugs themselves, which may in turn lead to an accidental addiction. However, she also acknowledges that people have a personal responsibility to become more informed and educated.



Service Providers' Perspectives

One of the main aims of this research has been to explore the experiences of service providers who are dealing with clients with a benzodiazepine addiction, to discuss their perceptions of the root causes, and to document their views on how services could respond.

There are two main groups in the Health Service Executive dealing with addiction. The first is the Community Substance Misuse Counsellors in the HSE Drug Service. We carried out face-to-face interviews with ten of these personnel. The second group includes the Addiction Counsellors in the HSE Mental Health Service. We carried out face-to-face interviews with six of them. The author wrote up a detailed note of each interview and this was passed to each person to ensure it was factually accurate and reflected the views expressed. These amended notes provided a basis for the discussion that follows.

Readers may wish to note that the Addiction Service in HSE Mental Health is geared to adults over 18 who are addicted to alcohol and/or prescription drugs. The HSE Drug Service, on the other hand, is for people under 18 with alcohol addiction, and for people over 18 with drug addiction. Referrals to Mental Health are arranged through a GP. The Drug Service is a self-referring, direct access facility.

A patient or client presenting to either service may be known or suspected to have an addiction to minor tranquillisers and sedatives, but this is no guarantee they will get the same range of services. In short, there is no over-arching obligation on service providers in the two care settings to work together in anything other than a goodwill fashion to deliver a tailored package of care and support, which meets the needs of an individual. This is not to say that co-operation does not occur; only that co-operation across sectors can be patchy, fragmented and unstructured.

In practical terms, the effect is that a person who presents with an alcohol and/or a benzodiazepine addiction to a GP will be referred to Mental Health, where they are likely to have ready access to specialist supports and multidisciplinary care. However, a person with an opiate and/or benzodiazepine addiction who comes to the Drug Service is unlikely to get detoxification, or an assessment by a Consultant Psychiatrist, or access to the full range of services provided by a multidisciplinary team.

None of this is equitable, or in keeping with the vision of the national health strategy, Quality & Fairness, which gives an explicit commitment to a health service that "supports and empowers you, your family and community to achieve your full health potential ... is there when you need it, is fair, and you can trust ... and encourages you to have your say, listens to you, and ensures your views are taken into account."

During our interviews with various service providers, we found a commonality of concerns expressed. Concerns were repeatedly expressed about inappropriate prescribing by some doctors; about the failure of public and regulatory authorities to exercise greater controls over inappropriate prescribing and dispensing (e.g., through changing the drug scheduling and reimbursement regimes); and about the consequences of lax controls as drivers of the black market.



Views of Addiction Counsellors

Grouping the views of the various Addiction Counsellors we interviewed into over-arching themes, the following views emerged on the root causes of misuse and the appropriate treatment and service response:

- a) Inappropriate Prescribing
- b) Individual Choice in Misuse
- c) Public Policy & Remuneration Issues
- d) Diversion and Leakage
- e) Key Service Issues

a) Inappropriate Prescribing

The Addiction Counsellors interviewed readily acknowledged the proven therapeutic benefits of minor tranquillisers and some noted that doctors are increasingly aware of their addictive potential, and so are more inclined to prescribe for a limited period and then review the prescription.

One identified this apparent trend as a key reason why the Addiction Service may now be seeing fewer people with a benzodiazepine addiction than in earlier decades where inappropriate prescribing was in their view, more commonplace. Others felt, however, that GPs would more likely try tapering a prescription than referring a patient to the Addiction Service. Were this true, it would suggest that only those with the most problematic addictions would likely be referred for specialist treatment. One noted that it's only when an addiction to minor tranquillisers and sedatives becomes really problematic that the mental health and primary care settings tend to engage, but even then it's more a case of crisis management than proactive care.

Several Addiction Counsellors expressed the view that this addiction is a significant hidden problem for society. Two remarked that it often goes hand-in-hand with alcohol addiction (the reason for the great majority of referrals to the Addiction Service); and that it may be created or conditioned by inappropriate prescribing of minor tranquillisers

and sedatives in the mental health services or in general practice in order to assist in abstinence.

Some GPs are said to experience pressure from some patients to prescribe inappropriately; a difficulty claimed to be compounded if the waiting room is crowded. In this situation, the responsible prescriber may be faced with a choice between refusing the patient's request, or writing a prescription and perhaps starting or stoking an addiction.

A general concern was expressed that many individuals have built up a tolerance and dependence as a result of being maintained on minor tranquillisers and sedatives long after the optimal therapeutic period. As one Addiction Counsellor put it: "I have young lads that would have been on the buildings in England and when they came back they were on 40mg of Valium four times a day. We got them down to 30mg a day and we had wrecks. We've had men turned into babies; that's what it looked like."

Discussions have taken place in primary care (and separately in some mental health services) in the three western counties about the need to ensure appropriate prescribing at all times. These have proved fruitless. A number of individuals working in the different settings have expressed the view that inappropriate prescribing is not an issue that concerns the medical profession greatly; or the health authorities, which appear not to demand more rigorous control and accountability for prescribing.

One Addiction Counsellor noted the need for an effort to shift public attitudes around prescribing, arguing that an unequal power/prestige relationship between prescriber and patient, and a lack of awareness and understanding of the benefits and risks of prescribed drugs on the part of the patient, means they leave much to the prescriber's discretion.



b) Individual Choice in Misuse

A second theme to emerge in the interviews with Addiction Counsellors concerns the choices that individuals make (or feel forced to make because of their addiction) about the use and misuse of minor tranquillisers and sedatives, albeit where they may not fully understand their addictive potential or the consequences of taking them incorrectly.

One Addiction Counsellor remarked, for example, that several individuals in the one household may be getting minor tranquillisers prescribed by their GP and by the Mental Health Services, yet share each other's prescriptions in the home. In cases of alcohol and minor tranquilliser co-dependency, the initial focus of the treatment will be on the primary presenting problem, which invariably is alcohol. When attention turns to the secondary addiction, the client may be reluctant to come off the minor tranquilliser, as in mental terms, they have sought treatment for an alcohol not a prescription drug addiction, and because they see no harm in continuing a drug that was prescribed by a doctor in the first place. This ties back to the experience of one member of the Users' Focus Group, who said she knew nothing about "white tablets" but hoped she could continue them while in treatment for alcohol addiction.

Others emphasised that one of the biggest problems an Addiction Counsellor or GP faces when dealing with a person in the early stages, is their reluctance to be honest, especially if they are looking for a minor tranquilliser to alleviate anxiety, which itself may be a symptom of substance misuse or dual diagnosis (misuse problem and mental health issue together).

One Addiction Counsellor cited the example of a client who had been treated for alcohol addiction and did not disclose at the time that he was also using minor tranquillisers, but at a later presentation to the Psychiatric Services was found to be taking 70-80mg of Diazepam a day, which he was buying on the street. The problem of establishing what a client is taking is compounded by the weakness of the testing for minor tranquillisers. This can detect their presence, but reportedly, not their concentrations.

c) Public Policy & Remuneration Issues

A third theme to emerge from the interviews with Addiction Counsellors concerned the usefulness of existing policy and controls for ensuring appropriate prescribing, minimising leakage to the street, and disentangling 'perverse' financial incentives which tend to reinforce inappropriate prescribing and dispensing. A number felt the existing situation was unsatisfactory.

One Addiction Counsellor advocated a twin-track approach to tackling misuse and leakage. The first would involve elevating the control schedule so that prescribing and dispensing become much more closely monitored and regulated, as is the case with drugs like Morphine, Pethidine and Dihydrocodeine. The second would involve introducing a penalty for inappropriate prescribing and dispensing in place of the current reward of an automatic fee for prescriber and dispenser, which as we have seen, has now begun to exceed the ingredient costs of minor tranquillisers and sedatives reimbursed under the two largest drug refund schemes.

A second Addiction Counsellor argued for a flexible protocol governing prescribing, which would reflect the requirement for greater control on the one hand, and the reality of the current position for patients and in society on the other. Among the issues to be considered would be:

- The requirement for a tapering regime to give the patient or client the confidence that they can guit in a reasonable time.
- The possibility that patients or clients will top up on the street if their prescription is restricted in a way that fails to take account of their needs (e.g., for tapering and alternatives).
- The reality that minor tranquillisers are easily accessible on the street and likely to remain so no matter what the controls.

A third Addiction Counsellor supported the idea of a protocol, not just to minimise inappropriate prescribing, but also to drive structured collaboration between primary care and mental



health, so that prescribing takes place in the context of key personal development strategies, such as behavioural or cognitive-behavioural therapies, and as part of a continuum of care.

d) Diversion & Leakage

Several Addiction Counsellors expressed concern that the current controls are so lax they are driving a thriving black market for minor tranquillisers. According to one, Diazepam can be bought on the street for as little as €0.50 a tablet in some places. We have already cited at least one case of an individual who was found to be illicitly misusing some 70-80mg of Diazepam a day.

In many instances, the Addiction Counsellors (and the Substance Misuse Counsellors) mentioned Diazepam, Temazepam and Alprazolam as among the drugs most often encountered in prescribed or illicit use.

Diazepam is among the most commonly prescribed benzodiazepines nationally on the community drug reinbursement schemes. The fact that the other two are also among the most commonly prescribed suggests that there is significant leakage from legitimate prescriptions to the street.

We have also noted the concerns expressed by some about a situation where the public purse funds some or all of the drug costs, and in some schemes all of the prescribing and dispensing fees, but where no public authority appears to attach any real interest or urgency to reducing inappropriate prescribing and containing potentially avoidable costs.

The potential for leakage is compounded where there is irregular or no review of a prescription in the context of a broader assessment of whether the issue for which they were prescribed has been resolved. If this is not done, the patient may end up with a long-term repeat prescription and, if so inclined, can opt to sell all or part of it on the black market.

e) Key Service Issues

The most critical of these are the lack of a full data collection and information-sharing capability (which would aggregate data held by the HSE and NDTRS); and the lack of structured, multidisciplinary working between primary care, mental health and the drug service in delivering a total care package for all clients, including those with dual diagnosis.

The current problems are evident in several respects. We have previously noted the experience of one of the Addiction Counsellors, who has cited examples where minor tranquillisers are being prescribed, without cross checking, in different settings for individuals in the same household, and of the people themselves then sharing them at home.

Moreover, when minor tranquillisers are used as a first-line treatment, without apparent due prior thought for the alternatives, the opportunity to empower the individual to try and manage their condition through self-reliance and complementary supports rather than drugs may be forgone.

Many of the Addiction Counsellors spoke about the need for and the value of a joined-up service embracing a wider, deeper, structured cooperation between primary care and mental health services, for tackling the root causes of misuse. The objective would be to control prescribing of minor tranquillisers and sedatives through structured co-operation and information sharing between settings, and seamless access to a continuum of care.



Views of Substance Misuse Counsellors

The views expressed by the Substance Misuse Counsellors on the root causes of misuse and the appropriate treatment and service response are very similar to those put forward by the Addiction Counsellors.

Again, it's worth remembering that the focus and client base of the respective services is somewhat different and that the effect of having two different approaches – medical vs. harm reduction – means it is difficult for the chaotic drug user to access psychiatric assessment and inpatient detoxification, which are likely to be readily accessible where an individual accesses the HSE West Mental Health Service via a GP.

From our discussions with the Substance Misuse Counsellors, a general profile of those who access the Drug Service and have a benzodiazepine addiction would be as follows: lower socioeconomic groups; largely dependent on social welfare; low educational attainment; not in employment; and in some areas, a noticeable number of males and females from the Traveller Community. One Substance Misuse Counsellor cited the example of a training group for Travellers where all the female participants had been taking minor tranquillisers on a long-term, prescribed basis, not necessarily for depression arising from within, but for dampening feelings of anxiety and low mood related to their socio-economic situation.

Grouping the views of the various Substance Misuse Counsellors we interviewed into overarching themes, the following emerged on the root causes of misuse and the appropriate treatment and service response:

- a) Inappropriate Prescribing
- b) Individual Choices in Misuse
- c) Diversion and Leakage
- d) Key Service Issues

a) Inappropriate Prescribing

The Substance Misuse Counsellors acknowledged the therapeutic benefits of minor tranquillisers and sedatives and noted that doctors generally are increasingly aware of their addictive potential, so are more inclined to limit their prescriptions and to review them more frequently.

One Substance Misuse Counsellor says, however, there is a "serious" prescribing issue, which is not reflected in the numbers presenting to the Drug Service. In other words there is likely to be a significant hidden problem.

This Substance Misuse Counsellor and a number of colleagues believe the roots of misuse are to be found in the sheer availability and normalisation of minor tranquillisers from prescribed and illicit use. First, they say long-term prescribed use causes dependence and discourages the individual from quitting. Second, they argue that widespread, illicit use stems, not just from the ease of disappearing a significant number of the vast quantity of minor tranquillisers authorised on legitimate prescriptions, but also from a mistaken mindset that appears to regard them as benign because they are prescribed and dispensed by expert, respectable, regulated healthcare professionals.

Another criticised the "blasé attitude to Diazepam" among some prescribers, and expressed concern that doctors appear not to be held accountable for prescribing decisions that are actually driving a vibrant street trade. Others expressed the view that the status of GPs and Pharmacists as independent contractors means they have little incentive or obligation to engage with the authorities to tackle the problem.

Some GPs do seek advice from the Drug Service before writing a prescription for a minor tranquilliser, where they have become aware the patient has an opiate addiction. Some will also refer a patient who has "hit a brick wall" in tapering



down, but in general there is little structured contact between GPs and the Drug Service; and nothing of the kind underpinning the Methadone Programme, where there has to be a named GP sharing the care and communicating proactively on medicines they prescribe.

We were informed that relatively few GPs are interested in being very closely involved in improving the health and well-being of the most marginalised groups and that most are likely to simply write a prescription, which is only partially used before being added to a bag or box of medications. With regard to some marginalised groups, such as homeless people, there appears to be a strong culture of individuals 'prescribing' for one another, which has obvious implications in terms of the amounts circulating among groups and in the black market.

b) Individual Choices in Misuse

Clients of the Drug Service who are misusing minor tranquillisers are likely have taken one of two routes there. Some will have begun by experimenting with a relatives' prescription, then got their own when tolerance and dependence developed, and then started topping up on the street when this was used up. Others would include them in a polydrug cocktail and would obtain all of what they need on the street.

One Substance Misuse Counsellor divided minor tranquilliser users into:

- 'Dabblers': mid to late-teens who take them after bingeing on stimulants, or as a mixer with alcohol;
- Polydrug users: adults in their mid-20s to mid-30s who have normalised them into a cocktail of drugs;
- Prescribed users: who got them for a life crisis but never resolved the crisis and maintained the prescription; and

 Dual diagnosis – an underlying mental health disorder combined with a substance addiction.

All of the Substance Misuse Counsellors reported that clients on heroin use benzodiazepines as an adjunct or a substitute; and that users of stimulants such as cocaine and ecstasy also use them to "manage the crash", as one put it. Clients will often have been taking them for several years before they present with another drug addiction; and it is rare for any client to think about their use of minor tranquillisers as a problem, which makes a difficult addiction even more difficult to manage.

Some clients will have a "small script", which they may top up as required on the street, typically with Diazepam; and an exceptional client has made what one of the Substance Misuse Counsellors regards as a credible claim to be taking 60-70mg Valium in a single weekend.

A number of the Substance Misuse Counsellors who are working with clients aged from mid-teens to mid-20s have flagged some significant changes in the drug scene. It was noted, for example, that minor tranquillisers are commonly used after a binge of stimulants. Some Substance Misuse Counsellors are now reporting minor tranquillisers being used as a starter drug where previously solvents were used; and that young adolescent males are mixing them with alcohol.

c) Diversion and Leakage

Several Substance Misuse Counsellors worried about the availability of large quantities of street Diazepam, with some remarking that a client is less likely to misuse a prescription for a tranquilliser other than Diazepam for fear of being cut off by the GP, but will top up with Diazepam bought on the street.



As mentioned previously, a number of the Substance Misuse Counsellors believe the roots of misuse are to be found in the sheer availability and normalisation of minor tranquillisers in both prescribed and illicit use. In other words, high rates of prescribing ensure a ready supply for a vibrant black market, which could be tackled with simple, practical measures, such as limited prescribing and phased dispensing.

d) Key Service Issues

Four of the Substance Misuse Counsellors felt that one good way of tackling misuse of minor tranquillisers and sedatives would be to provide a better education for patients, professionals and the public about their:

- Addictive nature
- Limited therapeutic value
- Potential to cause harm even though they may appear harmless because they are prescribed and dispensed by experts.

All of the Substance Misuse Counsellors were united in their desire to see an integrated treatment and service model – comprised of the Drug Service, Mental Health Service and Primary Care – accommodating the medical and harm reduction models, and delivering a comprehensive, accessible, individualised continuum of care and supports to all clients, including those with dual diagnosis, irrespective of the setting in which they present.

They also highlighted two further current gaps; lack of access to detoxification for the chaotic drug user and the need for a so-called 'Tranqs Clinic', which is not overtly identified with the 'Drug Service', so as to encourage benzodiazepine users to come forward for help.

Concluding Comments

The aim of this chapter has been to explore the misuse of minor tranquillisers in a health promotion context with recovering addicts and key healthcare personnel working in the field of addiction.

We have demonstrated that individual decisions by patients and prescribers have been instrumental in maintaining widespread misuse; and that public policy and authorities have failed to address inappropriate use by controlling three key drivers: pricing, prescribing and distribution.

The evidence also points towards a conclusion that public policy has failed to reorient health services for treating addiction to minor tranquillisers and sedatives, by putting the focus on prevention and delivering a continuum of care that includes medical intervention (where necessary) and ongoing supports that help the individual to learn new skills to cope with a life crisis, for which minor tranquillisers and sedatives might otherwise be prescribed.

Regarding the experiences of the recovering addicts, each was frank in admitting that they had made significant personal choices, and in emphasising that they did not blame others for their addiction. However, it appears none was aware, or made fully aware, of the risks of tolerance and dependence when they were prescribed minor tranquillisers; and none seemed able or willing to recognise and act early on the warning signs.

All of the evidence suggests that it was easy to get a prescription and easy to get it repeated, which suggests that inappropriate prescribing was at least as important as personal choice in feeding addiction.

That said, in two cases, individuals were able to access the drugs at work, which meant they were able to by-pass their GP. In this situation, no presciber could have exercised effective control, though it does raise questions as to the effectiveness of the management and professional

controls on the movement of prescribed drugs in certain healthcare settings.

Some participants also appeared to have a benign view of the risks of misuse, believing that their alcohol addiction was more problematic and hoping that they could continue with minor tranquillisers while abstaining from alcohol. Most went to great lengths to conceal their addictions and to avoid confronting them until it became absolutely necessary.

None appears to have been offered an alternative or complementary therapy by default treatment, though some admitted they weren't interested even if it was. This tends to confirm that alternative services were not generally considered by practitioners, patients or service providers as a viable alternative; and to underline the point that a person will not confront an addiction until they personally feel ready to do so.

We have seen that the Addiction Counsellors in Mental Health and the Substance Misuse Counsellors in the Drug Service are both concerned about the same broad issues, and that these also fit neatly to the health promotion perspective on addiction. These issues include:

- Continuing inappropriate prescribing by some doctors.
- Personal choices by some individuals to use minor tranquillisers and sedatives inappropriately, often in polydrug mix.
- The failure of the public health authorities and professional regulatory bodies to take concerted action.
- The continuance of a reimbursement regime in the community drug refund schemes where professional fees are paid automatically regardless of whether prescribing of dispening is appropriate or inappropriate.

 The ease with which significant quantities of minor tranquillisers and sedatives, especially Diazepam, can 'disappear' due to a lack of control on prescribing and distribution.

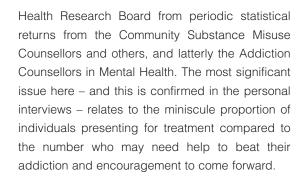
The interviews with service providers have also helped to highlight real, but repairable, weaknesses in the current service models, particularly the practical impact of using two different care models: the abstinence approach favoured by the Mental Health Service and some not-for-profit providers; and the harm reduction perspective underpinning the Drug Service.

Ideally, the two should be accommodated to reflect the reality of the drug problem, which is that, while abstinence is always preferable, it is not always achievable. That said, our interviews suggest an increasing recognition of the value of a joined up care and service model.

The creation of a single, unitary Health Service Executive provides an opportunity for all concerned to re-examine their assumptions and approaches, and to move towards a common model, which ensures that everyone has the same right and opportunity to access the same continuum of high-quality interventions and complementary supports, with a package tailored to their individual needs.

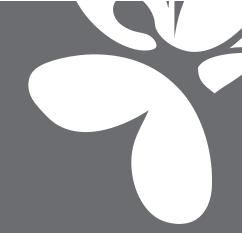
This chapter complements the analysis of data from the previous chapter, with a broader discussion based on the expertise and experience of people who work in the field of addiction, and the insights of those who have experienced it. This has been a valuable exercise and there is much for healthcare professionals and decision makers to consider.

A number of wider issues emerged. Chief among these is the question of data availability and data collection. The primary data source about those presenting for treatment for addiction to minor tranquillisers and sedatives is compiled by the



The inclusion of the Addiction Counsellors will ensure that a more complete picture of those presenting for treatment can be compiled. The major gap is that General Practitioners, who may be the first to spot the signs of a potential addiction, are not actually part of the group making statistical returns. This is a major gap, which ought to be closed.

There are three parties to every prescription - the prescriber, the pharmacist and the patient.





Summary and Recommendations



Summary

This study confirms that prescribing minor tranquillisers and sedatives is excessive and routine in the western region. We identify a range of actions, including more rigorous regulation, more rational prescribing, tighter controls on distribution, further education and training for doctors and pharmacists, better information for patients, and an over-arching requirement for equitable access to a continuum of medical and non-medical supports as measures that could be considered for maximising benefits and minimising drawbacks.

- Minor tranquillisers and sedatives are psychoactive drugs with proven clinical and quality of life benefits for the individual, so long as they are used correctly for no longer than four weeks.
- Although there is compelling evidence of serious health risks from incorrect usage, including tolerance and dependence, minor tranquillisers and sedatives continue to be prescribed, used and misused extensively.
- 3. In Ireland spending on minor tranquillisers and sedatives by the public health service under the main community drug refund schemes has doubled in eight years and the total spend from 2000-2007 is €168.9 million.
- 4. The Department of Health and Children issued good practice prescribing guidelines for clinicians in 2002 to encourage more rational use and prescribing, but these appear to have had little impact on prescribing practices, especially for women, older people and people in a deprived socio-economic situation.

- 5. The HRB figures illustrate the profile of those accessing the Drug Service. However, for most of these clients, minor tranquillisers and sedatives are a secondary rather than a primary drug problem. In addition, because the Mental Health Service has just started reporting to the National Drug Treatment Reporting System, it will be some time before there is a full picture of those coming for treatment. That said, these data support four interm conclusions:
 - a. Very few people are coming forward for treatment when compared to the numbers receiving prescriptions.
 - b. Males make up the majority of cases presenting, even though females get most of the prescriptions.
 - Most of those presenting are under 40 whereas the majority of prescriptions go to people over 40.
 - d. The pre-eminence of Diazepam on the 'street' is likely due to the fact that it is prescribed very frequently and often in large quantities, making it easy to divert.
- 6. The HSE data provide's compelling evidence of the extent to which prescribing has escalated; and the numbers who may be addicted from inappropriate long term use stand in stark contrast with the numbers presenting for treatment for problem drug use.
- 7. The health promotion perspective on addiction explains that individual choices and decisions on the part of patients, prescribers, pharmacists and the public health authorities have been instrumental in maintaining a pattern of widespread misuse.



- 8. Moreover, there has been a systemic failure of public policy and on the part of the public health authorities to control three key drivers of incorrect usage; pricing, prescribing and distribution. The professional fees paid to prescribers and pharmacies now exceed the ingredient cost of the drugs. The figures from the prescriptions database suggest that the good practice prescribing guidelines have had little impact. Evidence for the lack of effective controls on distribution is to be found in the sheer quantities being prescribed, which makes it easy to divert to the black market.
- 9. The public health authorities have failed to develop a continuum of medical and nonmedical supports for those addicted to minor tranquillisers and sedatives. Moreover, they have failed to get primary care, mental health and community service providers participating in a joined up care and service model that could ensure addiction is picked up quicker, treated sooner and managed more fully, no matter which setting the individual presents to.
- 10. Addiction Counsellors in the Mental Health Service and Substance Misuse Counsellors in the Drug Service appear to share the same broad concerns about the misuse of minor tranquillisers and sedatives. These dovetail neatly with the health promotion perspective on addiction. In summary, the chief concerns relate to:
 - A Continued high levels of prescribing by some doctors;
 - B Personal choices by some individuals to use minor tranquillisers and sedatives incorrectly, on a prescribed and/or an illicit basis, often in a multi-substance mix.

- C The failure of the health authorities and professional regulatory agencies to be more proactive in identifying and addressing inappropriate prescribing and dispensing;
- D The incentives in the drug refund schemes, which do not reward or penalise good or bad prescribing and dispensing;
- E The ease with which significant quantities of minor tranquillisers and sedatives, especially Diazepam, are 'disappearing' to the street because of lax controls on prescribing and distribution.
- 11. The interviews with service providers highlighted significant deficiencies in ensuring that all individuals have equal access to the same range of services regardless of the setting in which they present. In particular, the abstinence approach favoured by Mental Health may not sit easily with the harm reduction model in the Drug Service. In practical terms, this could mean that an individual, who may be labelled as a 'drug user' and presents to the Drug Service with an addiction to minor tranquillisers or sedatives, is not guaranteed access to detoxification, whereas they would likely get this service as part of a multidisciplinary care package were they to access the Mental Health Service through a GP.



Number of Individuals

- Some 89,721 distinct individuals in counties Galway, Mayo and Roscommon were prescribed minor tranquillisers and sedatives between 2000 and 2007.
- Almost 80% of these individuals were people who were entitled to see their doctor and to get their prescriptions free of charge (GMS), while the vast majority of the remaining 21% were people who paid the doctor and pharmacist but were entitled to claim a refund on the cost of their prescriptions (DPS).
- 3. About 42% were male and 58% female.

General Profile

- 1. The numbers of people prescribed minor tranquillisers and sedatives in all three schemes has increased year on year up from slightly less than 25,000 in 2000 to a little over 33,000 in 2007.
- 2. Looking at averages across the period:
 - a. Around 54% of those prescribed minor tranquillisers and sedatives were over the age of 65. As a general comparator, only 12.5% of the population of the three counties was aged 65+ in 2006.
 - b. The percentage of males was 38%, and the percentage of females 62%. As a general comparator, the population of the region was evenly split between males and females in 2006
 - c. Some 49% were from Galway, 34% from Mayo and 17% from Roscommon. As a general comparator, the population distribution was 56% in Galway, 30% in Mayo and 14% in Roscommon in 2006.
 - d. The average percentages of people in the GMS and DPS were 52% and 46% respectively for the period from 2000 to 2007.

 In summary, women, older people and people on low incomes are over-represented in the averages, while men and people on higher incomes are correspondingly underrepresented.

Number of Prescriptions

- The total number of prescriptions written in the three counties increased every year between 2000 and 2007.
- 2. People aged 65 or more, who comprise just 12.5% of the population of the region, got close to two-thirds of all prescriptions.
- Women, who comprise around half the population of the region, also got close to twothirds of all prescriptions.
- Some 1.5 million prescriptions were reimbursed between 2000 and 2007. Almost 88% of prescriptions went to people with medical cards, while almost all of the remaining 12% of prescriptions were for people in the DPS.
 - a. Across all three schemes, the top five drugs, measured in descending order of number of prescriptions, were Temazepam, Diazepam, Zopiclone, Alprazolam and Bromazepam.
 - In the GMS, the top five drugs were Temazepam, Diazepam, Alprazolam, Zopiclone and Bromazepam.
 - ii. Four of the top five in the GMS were also in the top five of the DPS, albeit in different rank order, with Bromazepam displaced from fifth position by Zolpidem, which joined Zopiclone as the second and second most popular nonbenzodiazepine hypnotic on the list of most prescribed minor tranquillisers and sedatives.



Drug Usage

- 1. The Benzodiazepine Committee used the Defined Daily Dose measurement system to arrive at a rough estimate of the proportion of the population treated daily with minor tranquillisers and sedatives. (It gave the example that a figure of 10 DDDs per 1,000 inhabitants per day would indicate that the amount used in terms of one normal adult dose per day would be given to 1% of the population on average). We followed the same approach in this study.
- 2. In the GMS, usage, as measured in Defined Daily Doses / 1,000 / Day of the scheme population fell by 2% in 2001, a full year before the good practice prescribing guidelines for clinicians were published, but increased every year except one thereafter: up 15% in 2002, up 7% in 2003, up 7% in 2004, up 4% in 2005, down 2% in 2006, and finally, up 3% in 2007.
- 3. In 2000, around 7.5% of the GMS population of the three counties were using minor tranquillisers and sedatives. By 2007, this had increased to slightly less than 10%. In other words, the good practice guidelines had little or no effect in the GMS and a pattern of increased prescribing became more deeply embedded.
- 4. In the DPS, usage, as measured in Defined Daily Doses / 1,000 / Day of the scheme population decreased four years in a row (2001 to 2004) but fluctuated in both directions in the following three years. The reductions were 7%, 13%, 10% and 1% between 2001 and 2004. Usage increased by 20% in 2005, fell by 1% in 2006 and rose by 8% in 2007.
- 5. In 2000, around 1.5% of the DPS population of the three counties were using minor tranquillisers and sedatives. By 2007, this number was largely unchanged, albeit that some significant reductions were achieved in a number of the intervening years. From this we

- may conclude that the good practice guidelines may have had some positive effect, albeit in a context where usage in the DPS was small to begin with, and much smaller by contrast with the GMS.
- 6. The number of DDDs per 1,000 per day of the GMS population has been a significant multiple of the number of DDDs per 1,000 per day of the DPS population in all years. The multiple was 5 in two years, 7 in four, 8 in one, and 9 in one year. This suggests that people in the GMS get from 5 to 9 times the number of DDDs as people in the DPS.
- 7. The quantity of doses per form i.e. the number of DDDs per prescription form appears to be well within the good practice guidelines. In the GMS, the average of DDDs from 2000 to 2007 is 21.54 days supply; while the figure in the DPS is slightly lower, at 20.08 days.

Long-Term Usage and Prescribing

- 1. However, in terms of those who are actually being prescribed minor tranquillisers and sedatives, as opposed to the numbers who are estimated to be using them, there are serious issues with regard to long term usage and long term prescribing. We defined the former as the number of individuals in the medical card and the private schemes who are prescribed > 56 DDDs (two months supply or more) per year for anywhere from two to eight consecutive years. We defined long term prescribing as the number of doctors who prescribe > 56 DDDs (two months supply or more) per year of the same drug to the same individual for anywhere from two to eight consecutive years.
- This analysis identified that there is a significant number being prescribed minor tranquillisers and sedatives for long periods - longer than the maximum recommended times. Taking the GMS, DPS and LTI together, a total of 15,935 people, or nearly 18% of all individuals, had

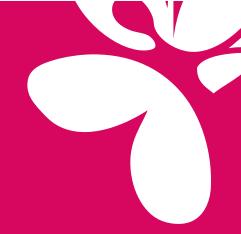
been prescribed minor tranquillisers and sedatives for two months or more at least once for up to eight consecutive years. Clearly this goes far beyond the maximum recommended period of a one-month, once-off prescription favoured in the good practice guidelines. GMS clients i.e. people in the state-funded scheme account for almost nine out of ten of those affected; and they outnumber those in the private, pay-as-you-go scheme by a factor of between 5 and 18 times.

3. This analysis also identified a significant number of doctors prescribing to some patients for protracted periods. The highest number prescribing two months supply or more at least once in consecutive years, was for two consecutive years (389 GPs) and the lowest number was for eight consecutive years (159 GPs). In all, there were 415 GPs who prescribed in protracted fashion, as defined, at least once during the period under study here.

Recommendations

- The Health Service Executive, Medical Council
 of Ireland and the Pharmaceutical Society of
 Ireland should work closely and more
 proactively together to identify and address
 known or suspected cases of inappropriate
 prescribing and dispensing.
- Consideration should be given to making the current good practice prescribing guidelines binding on all prescribers.
- 3. Consideration should be given to moving minor tranquillisers and sedatives into a higher control schedule, so that prescribers must endorse in their own hand-writing, the quantity and dose on every prescription and pharmacies are required to keep these drugs in an appropriate storage place.

- 4. The HSE should take the lead in providing simple, complete and accessible information, so that individuals can make an informed decision about whether to use or refuse these drugs.
- 5. Prescribers should have a particular responsibility to use the power that flows from their expertise, to level the playing field for patients, so that those individuals are not at a relative disadvantage through not being properly informed, empowered and engaged to weigh the costs and benefits of using or refusing these drugs.
- Courses in the practice of medicine and pharmacy should include an increased emphasis on good prescribing and dispensing practices, so that professional awareness and understanding of the risks and benefits of minor tranquillisers and sedatives is maximised.
- 7. The HSE should make it a priority to develop a joined-up care and service model straddling primary care, mental health, community services, and not-for-profit/voluntary service providers, so that all those who seek treatment for an addiction to minor tranquillisers and sedatives have the same access to the same range of medical and non-medical supports, regardless of the setting they present in.
- 8. The NDTRS statistical reporting system should be extended to include General Practitioners.





Appendix 1 Tables



Table 1 Number of Individuals; Scheme and Gender; GMR Region 2000-2007.

Scheme	
GMS	70,486
DPS	18,992
LTI	243
Total	89,721
Gender	
Male	37,522
Female	52,199
Total	89,721

Table 2 Number of Patients: Age; GMR Region 2000-2007

Age	Year 2000	2001	2002	2003	2004	2005	2006	2007
< 15	466	380	311	260	195	163	154	141
15-24	219	249	325	454	542	632	728	980
25-44	2,344	2,867	3,159	3,492	3,769	4,005	4,406	5,369
45-64	6,607	7,350	8,158	8,466	9,077	9,684	10,513	11,613
65+	15,279	15,876	15,901	15,781	15,771	15,830	15,338	15,264
Unlisted	22		12				4	2

Table 3 Number of Patients: Gender; GMR Region 2000-2007

Gender	2000	2001	2002	2003	2004	2005	2006	2007
Male	9,572	10,181	10,702	10,730	11,207	11,604	11,764	12,549
Female	15,296	16,478	17,111	17,677	18,113	18,680	19,351	20,797
Unlisted	69	63	53	46	34	30	28	23

Table 4 Number of Patients: Scheme; GMR Region 2000-2007

Scheme	2000	2001	2002	2003	2004	2005	2006	2007
GMS	21,105	22,236	23,392	23,918	24,563	25,080	25,236	26,378
DPS	3,741	4,396	4,384	4,442	4,693	5,137	5,798	6,881
LTI	91	90	90	93	98	97	109	110

Table 5 Number of Patients: County; GMR Region 2000-2007

County	2000	2001	2002	2003	2004	2005	2006	2007
Galway	11,975	13,021	13,496	13,813	14,219	14,649	15,238	16,480
Mayo	8,802	9,152	9,540	9,726	10,116	10,427	10,607	11,264
Roscommon	4,061	4,461	4,778	4,869	4,972	5,202	5,268	5,597
Unlisted	96	82	50	45	46	36	29	27



Table 6 Prescriptions: Total; GMR Region 2000-2007

Year	
2000	150,944
2001	152,074
2002	175,095
2003	183,048
2004	194,978
2005	205,650
2006	213,469
2007	231,158
Total	1,506,416

Table 7 Prescriptions: Number by Age; GMR Region 2000-2007

Age	GMS	DPS	LTI	Total
< 15	11,457	327	312	12,096
15-24	8,864	1,714	210	10,788
25-44	101,091	16,587	1,775	119,453
45-64	322,656	103,990	1,547	428,193
65+	874,145	60,541	941	935,627
Unlisted	61	117	81	259
Total	1,318,274	183,276	4,866	1,506,416

Table 8 Prescriptions: Number by Gender; GMR Region 2000-2007

Gender	GMS	DPS	LTI	Total
Male	471,120	66,574	1,323	539,017
_ Female	847,154	116,356	1,283	964,793
Unlisted		346	2,260	2,606
Total	1,318,274	183,276	4,866	1,506,416

Table 9 Prescriptions: Number by County; GMR Region 2000-2007

County	
Galway	710,887
Mayo	514,696
Roscommon	278,064
Unlisted	2,769
Total	1,506,416

Table 10 Prescriptions Numbers by Scheme; GMR Region 2000-2007

	2000	2001	2002	2003	2004	2005	2006	2007	Total
GMS	133,065	131,460	154,134	162,061	172,670	180,827	185,884	198,173	1,318,274
DPS	17,262	20,011	20,394	20,396	21,723	24,216	26,924	32,350	183,276
LTI	617	603	567	591	585	607	661	635	4,866
	150,944	152,074	175,095	183,048	194,528	205,650	215,196	229,881	1,506,416



Table 11 Number of GMS, DPS and LTI Prescriptions and Top 5 Drugs in each scheme; Galway, Mayo and Roscommon, 2000-2007

Number of Prescriptions Per Drug	GMS	DPS	LTI	Total
Alprazolam	161,298	35,014	40	196,352
Bromazepam	87,100	14,810	80	101,990
Brotizolam	10			10
Chlordiazepoxide	33,577	3,769	17	37,363
Clobazam	12,118	1,504	2,542	16,164
Diazepam	221,727	26,264	1,031	249,022
Flunitrazepam	32,352	3,522		35,874
Flurazepam	72,004	10,273	124	82,401
Loprazolam	1			1
Lorazepam	30,701	2,931	71	33,703
Lormetazepam	33,549	3,823	4	37,376
Medazepam	1			1
Midazolam	1,515	89	141	1,745
Nitrazepam	60,200	3,178	355	63,733
Potassium Clorazepate	9,593	1,567	28	11,188
Prazepam	8,286	1,909	2	10,197
Temazepam	286,420	19,752	67	306,239
Triazolam	24,388	3,150	7	27,545
Zaleplon	7,123	1,891	19	9,033
Zolpidem	78,946	17,415	38	96,399
Zopiclone	157,365	32,415	300	190,080
Total Prescriptions	1,318,274	183,276	4,866	1,506,416
Percentage of Prescriptions by Scheme	87.51%	12.17%	0.32%	100.00%

Top 5 Drugs by Number of Prescriptions									
GMS	DPS	LTI	Total						
1. Temazepam	1. Alprazolam	1. Clobazam	1. Temazepam						
2. Diazepam	2. Zopiclone	2. Diazepam	2. Diazepam						
3. Alprazolam	3. Diazepam	3. Nitrazepam	3. Alprazolam						
4. Zopiclone	4. Temazepam	4. Zopiclone	4. Zopiclone						
5. Bromazepam	5. Zolpidem	5. Midazolam	5. Bromazepam						



Table 12 Usage of Minor Tranquillisers and Sedatives: DDDs, Frequency of Prescriptions and Quantity Per Form; GMS (Medical Card) Adult Population; GMR Region 2000-2007

	2000	2001	2002	2003	2004	2005	2006	2007
Alprazolam	212,717	234,387	285,852	296,945	320,145	337,723	363,770	390,419
Bromazepam	120,693	111,322	115,385	112,685	111,264	113,324	111,175	112,836
Brotizolam	0	0	0	0	96	57	0	0
Chlordiazepoxide	58,291	51,302	60,888	65,755	66,624	64,042	38,803	66,378
Clobazam	0	0	47,701	46,138	50,688	48,959	47,331	52,190
Diazepam	508,270	486,144	520,122	520,073	549,955	558,276	551,567	583,806
Flunitrazepam	145,993	130,724	143,391	131,112	129,767	125,998	121,894	124,362
Flurazepam	191,737	183,360	210,779	213,917	214,821	216,507	208,494	214,565
Loprazolam	28	0	0	0	0	0	0	0
Lorazepam	94,160	90,296	94,987	101,960	97,754	87,183	85,650	94,867
Lormetazepam	110,828	98,153	115,475	119,286	116,529	115,332	106,637	105,002
Medazepam	50	0	0	0	0	0	0	0
Midazolam	1,466	1,473	709	983	2,097	2,011	3,453	2,758
Nitrazepam	308,342	273,770	276,427	267,717	255,402	238,160	219,058	199,175
Pot Clorazepate	37,138	30,535	28,328	26,513	25,043	23,535	7,345	461
Prazepam	14,596	13,014	14,014	13,484	12,879	13,370	12,693	13,283
Temazepam	695,387	690,473	793,563	818,573	829,578	815,156	796,849	798,860
Triazolam	86,957	75,601	89,115	93,353	90,745	90,680	94,470	97,353
Zaleplon	14,963	24,587	22,455	19,128	15,935	14,354	10,167	8,671
Zolpidem	71,713	83,472	135,076	190,440	247,738	305,572	343,080	399,191
Zopiclone	282,030	305,022	414,423	488,104	573,565	659,777	753,257	898,935
Total DDDs	2,955,357	2,883,634	3,368,686	3,526,163	3,710,621	3,830,013	3,875,692	4,163,110
DDDs / 1,000 / Day	74.24	73.06	83.79	89.48	95.51	99.00	96.67	99.32
DDD3 / 1,000 / Day	14.24	70.00	00.75	09.40	30.01	33.00	30.07	33.02
Frequency	133,065	131,460	154,134	162,061	172,670	180,827	185,884	198,173
Quantity Per Form	22.21	21.94	21.86	21.76	21.49	21.18	20.85	21.01



Table 13 Usage of Minor Tranquillisers and Sedatives: DDDs, Frequency of Prescriptions and Quantity Per Form; DPS ('Private') Adult Population; GMR Region 2000-2007

	2000	2001	2002	2003	2004	2005	2006	2007
Alprazolam	41,849	55,156	59,468	57,861	61,071	66,181	73,214	84,476
Bromazepam	14,915	17,052	18,851	17,850	18,440	20,722	19,674	22,327
Chlordiazepoxide	5,282	5,490	7,541	7,531	6,882	6,676	5,963	7,502
Clobazam	4,015	4,674	4,285	3,790	2,902	2,722	3,317	4,433
Diazepam	41,156	45,719	45,601	42,394	47,481	51,680	57,674	64,710
Flunitrazepam	13,965	15,566	14,947	12,595	14,390	14,536	10,794	14,330
Flurazepam	26,943	32,673	28,809	26,365	27,674	28,848	27,751	30,379
Lorazepam	7,248	8,550	6,245	6,344	6,434	5,721	6,814	10,964
Lormetazepam	13,670	15,187	12,642	11,455	10,929	10,593	13,466	15,257
Midazolam	293	55	17	57	57	69	50	71
Nitrazepam	21,946	19,565	13,543	13,098	11,422	10,258	9,696	11,074
Pot Clorazepate	4,592	5,003	4,839	4,195	4,227	3,481	1,160	23
Prazepam	3,374	3,676	2,684	3,932	3,873	4,249	4,398	3,246
Temazepam	58,418	60,611	55,146	47,268	46,729	45,683	52,062	62,095
Triazolam	11,655	13,092	10,826	10,684	11,988	14,313	14,076	14,630
Zaleplon	3,701	7,914	5,885	3,941	3,880	4,375	4,432	3,689
Zolpidem	15,920	21,609	29,101	41,228	51,540	61,893	80,402	100,719
Zopiclone	70,281	89,941	92,827	96,340	107,612	123,487	143,470	169,090
Total DDDs	359,222	421,533	413,253	406,926	437,529	475,485	528,410	619,013
DDDs / 1,000 / Day	15.41	14.33	12.44	11.21	11.07	13.28	13.13	14.17
Frequency	17,262	20,011	20,394	20,396	21,723	24,216	26,924	32,350
Quantity Per Form	20.81	21.07	20.26	19.95	20.14	19.64	19.63	19.13



Table 14 Number of Patients who have received > 56 DDDs (two months supply or more) per year for two to eight consecutive years in the GMS, DPS and LTI Schemes.

Long Term Usage	2 Years	3 Years	4 Years	5 Years	6 Years	7 Years	8 Years	Total
GMS	4,141	2,445	1,643	1,276	1,036	903	2,403	13,847
DPS	891	383	237	158	136	84	134	2,023
LTI	10	10	7	13	4	4	17	65
Total	5,042	2,838	1,887	1,447	1,176	991	2,554	15,935

Table 15 Number of Doctors who prescribe > 56 DDDs (two months supply or more) to the same patient for two to eight consecutive years, in the GMS Scheme.

Long Term Prescribing	2 Years	3 Years	4 Years	5 Years	6 Years	7 Years	8 Years
Number of Doctors	390	270	233	213	189	165	160



Table 16 Public Expenditure on Minor Tranquillisers and Sedatives; GMS, DP and LTI Schemes; Ireland 2000-2007.

	2000	2001	2002	2003	2004	2005	2006	2007
GMS Drug Cost	6,210,315	6,837,333	8,286,538	8,994,982	9,660,753	10,169,956	10,604,263	10,316,832
Professional Fee	4,311,298	5,123,607	6,171,470	7,280,745	8,276,615	8,698,810	9,931,779	10,696,037
DPS Drug Cost	1,753,769	2,185,244	2,241,875	2,244,390	2,319,522	2,378,724	2,529,356	2,479,671
Professional Fee	1,630,902	2,109,514	2,191,051	2,197,546	2,270,810	2,321,723	2,594,883	2,729,433
LTI Drug Cost	55,248	56,667	59,089	63,685	64,111	93,023	108,152	113,585
Professional Fee	50,113	54,028	56,533	59,563	60,855	77,355	88,892	91,989
Total (Ireland)	€14,011,645	€16,366,393	€19,006,556	€20,840,911	€22,652,666	€23,739,591	€25,857,325	€26,427,547

Total Costs	€168,902,634
GMS Drug	€71,080,972
GMS Fee	€60,490,361
DPS Drug	€18,132,551
DPS Fee	€18,045,862
LTI Drug	€613,560
LTI Fee	€539,328
Total	€168,902,634

Table 17 Number of People Eligible for Principal Community Drug Refund Schemes; GMR Region and Ireland 2000-2007.

Chies Coor Coor	Numbers Eligible (GMR Region)	GMR Region)								
2000 2001 2002 2003 2004 2005 2006 2007 Average 139,053 142,287 138,329 136,089 134,188 133,582 138,680 144,897 138,384 84,920 104,266 118,893 125,632 135,824 130,119 140,834 152,068 124,070 5,257 5,396 5,857 6,273 4,133 4,657 5,220 5,893 5,336 229,230 251,949 263,079 267,994 274,115 268,358 284,734 302,858 267,790 2000 2001 263,079 267,994 274,115 268,358 284,734 302,858 267,790 2000 2001 2002 2003 2004 2005 2006 2007 Average 1,148,055 1,166,836 1,319,345 1,148,914 1,148,914 1,155,727 1,221,695 1,261,78 1,184,614 82,619 87,988 92,745 97,184 93,504 99,280<	GMS									
139,053 142,287 138,329 136,089 134,158 133,582 138,680 144,897 138,384 84,920 104,266 118,893 125,632 135,824 130,119 140,834 152,068 124,070 5,257 5,396 5,857 6,273 4,133 4,657 5,220 5,893 5,336 229,230 251,949 263,079 267,994 274,115 268,358 284,734 302,858 267,790 2000 2001 2002 2003 204,115 1,148,055 1,221,695 1,276,178 1,184,614 1,148,055 1,199,454 1,168,745 1,188,143 1,148,914 1,155,727 1,221,695 1,276,178 1,184,614 942,193 1,156,836 1,396,813 1,469,251 1,478,650 1,525,657 1,583,738 1,359,067 82,619 87,988 92,745 97,184 93,504 99,280 106,307 112,580 2,640,206 1h Population 57,38 63,66 66,18	2000	2001	2002	2003	2004	2005	2006	2007	Average	% of Total
84,920 104,266 118,893 125,632 135,824 130,119 140,834 152,068 124,070 5,257 5,396 5,857 6,273 4,133 4,657 5,220 5,893 5,336 229,230 251,949 263,079 267,994 274,115 268,358 284,734 302,858 267,790 2000 2001 2002 2003 2004 2005 2006 2007 Average 1,148,055 1,199,454 1,168,745 1,148,914 1,155,727 1,221,695 1,276,178 1,184,614 942,193 1,156,836 1,396,813 1,469,251 1,478,650 1,625,657 1,583,738 1,359,067 82,619 87,986 92,745 97,184 93,504 99,280 106,307 112,580 96,526 2,172,867 2,444,278 2,580,885 2,652,140 2,711,669 2,733,657 2,853,659 2,972,496 2,640,206 ac Schemes 57,38 63,66 66,18 67,71 67,	139,053	142,287	138,329	136,089	134,158	133,582	138,680	144,897	138,384	51.68%
84,920 104,266 118,893 125,624 130,119 140,834 152,068 124,070 5,257 5,396 5,857 6,273 4,133 4,657 5,220 5,893 5,336 229,230 251,949 267,994 274,115 268,358 284,734 302,858 267,790 2000 2001 2002 2008 2004 2005 2006 2007 Average 1,148,055 1,199,454 1,168,745 1,158,143 1,148,914 1,155,727 1,221,695 1,276,178 1,184,614 942,193 1,156,836 1,396,813 1,469,251 1,478,650 1,525,657 1,583,738 1,350,067 82,619 87,388 92,745 97,184 93,504 99,280 106,307 112,580 96,526 2,172,867 2,444,278 2,580,885 2,652,140 2,711,689 2,733,657 2,853,659 2,972,496 2,640,206 accounties 65,68 66,18 67,71 67,05 68,53 67,										
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229,230 251,949 263,079 267,994 274,115 268,358 284,734 302,858 267,790 220,200 2001 2002 2003 2004 2005 2006 2007 Average 1,148,055 1,199,454 1,168,745 1,158,143 1,148,914 1,155,727 1,221,695 1,276,178 1,184,614 242,193 1,156,836 1,319,395 1,396,813 1,469,251 1,478,650 1,625,657 1,583,738 1,359,067 2,172,867 2,444,278 2,580,885 2,652,140 2,711,669 2,733,657 2,853,659 2,972,496 2,640,206 e Schemes 57.38 63.66 66.18 67.71 67.05 68.53 67.39		5,396	5,857	6.273	4,133	4,657	5,220	5,893	5,336	1.99%
229,230 251,949 263,079 267,994 274,115 268,358 284,734 302,858 267,790 2012 2002 2003 2004 2005 2006 2007 Average 1,148,055 1,199,454 1,168,745 1,158,143 1,148,914 1,155,727 1,221,695 1,276,178 1,184,614 242,193 1,156,836 1,319,395 1,396,813 1,469,251 1,478,650 1,655,657 1,583,738 1,359,067 2,172,867 2,444,278 2,580,885 2,652,140 2,711,669 2,733,657 2,853,659 2,972,496 2,640,206 e. Schemes 57,38 63.66 66.18 67.71 67.05 68.53 67.39	Total									
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2000 2000 2000 2000 2000 2000 2000 2000 Average 1,148,055 1,199,454 1,168,745 1,158,143 1,148,914 1,155,727 1,221,695 1,276,178 1,184,614 942,193 1,156,836 1,319,395 1,396,813 1,469,251 1,478,650 1,525,657 1,583,738 1,359,067 82,619 87,988 92,745 97,184 93,504 99,280 106,307 112,580 96,526 2,172,867 2,444,278 2,580,885 2,652,140 2,711,669 2,733,657 2,853,659 2,972,496 2,640,206 sh Population 57.38 63.66 66.18 67.05 67.05 68.53 67.39										
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942,193 1,156,836 1,319,395 1,396,813 1,469,251 1,478,650 1,525,657 1,583,738 1,359,067 1,56,836 92,745 97,184 93,504 99,280 106,307 112,580 96,526 96,526 2,172,867 2,444,278 2,580,885 2,652,140 2,711,669 2,733,657 2,853,659 2,972,496 2,640,206 see Schemes 57.38 63.66 66.18 67.71 67.05 68.53 67.39	1,148,055	1,199,454	1,168,745	1,158,143	1,148,914	1,155,727	1,221,695	1,276,178	1,184,614	44.87%
1,156,836 1,319,395 1,396,813 1,469,251 1,478,650 1,525,657 1,583,738 1,359,067 87,988 92,745 97,184 93,504 99,280 106,307 112,580 96,526 2,444,278 2,580,885 2,652,140 2,711,669 2,733,657 2,853,659 2,972,496 2,640,206 57.38 63.66 66.18 67.71 67.05 68.53 67.39	DPS									
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87,988 92,745 97,184 93,504 99,280 106,307 112,580 96,526 2,444,278 2,580,885 2,652,140 2,711,669 2,733,657 2,853,659 2,972,496 2,640,206 57.38 63.66 66.18 67.71 67.05 68.53 67.39										
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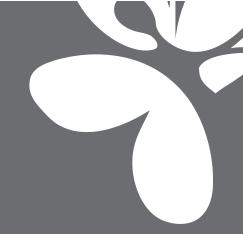


Table 18 Population GMR Region (Census 2006).

County	
Galway	231,670
Mayo	123,839
Roscommon	58,768
Total	414,277

Gender		
Males	209,290	51%
Females	204,987	49%
Total	414,277	

Age	Galway	Mayo	Roscommon
0-14	46,046	25,409	11,977
<u>15-24</u>	37,886	16,430	7,438
25-44	72,859	33,356	16,165
45-64	49,371	30,782	14,473
65+	25,508	17,862	8,715
Total	231,670	123,839	58,768





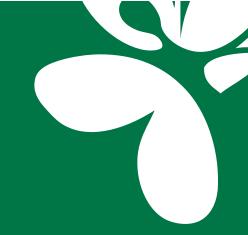
Appendix 2 WHO DDD Values



Appendix 2: Minor Tranquillisers & Sedatives

Generic Drug Names & Defined Daily Dose Values

Generic / Approved Name	W.H.O. DDD Value ⁶¹
Alprazolam	1mg
Bromazepam	10mg
Brotizolam	0.25mg
Chlordiazepoxide	30mg (or 50mg by Injection)
Clobazam	20mg
Clorazepate	20mg
Diazepam	10mg
Flunitrazepam	1mg
Flurazepam	30mg
Loprazolam	1mg
Lorazepam	2.5mg
Lormetazepam	1mg
Medazepam	20mg
Midazolam	15mg
Nitrazepam	5mg
Prazepam	30mg
Temazepam	20mg
Triazolam	0.25mg (or 0.2mg under tongue)
Zaleplon	10mg
Zolpidem	10mg
Zopiclone	7.5mg





Appendix 3 A Case Study of Codeine Addiction

Although this research was concerned with the addictive potential of minor tranquillisers and sedatives, we became aware during the study that concern is rising among healthcare professionals about the increasing numbers of people who may be misusing over-the-counter combination products containing Codeine, an opioid drug used for the relief of mild to moderate pain.

In the Focus Group, there was one individual who spoke about his own personal battle with Codeine addiction. His is a story that echoes the experiences of others who have battled an addiction to minor tranquillisers and sedatives. It also underlines that Codeine addiction is a significant hidden problem that, at the least, merits further, detailed analysis.

John's Story

John is married and recovering from an addiction to Codeine. After taking it for a hangover, he found it also gave a feeling of euphoria. He preferred Nurofen Plus, which he discovered had "50% more of a [Codeine] hit" than a rival product, Solpadeine.

John described a typical routine in the following way: "A general day in my life was get up in the morning, take 14-16 tablets, around 10am take another 12, lunchtime might take another 12, and then in the evening take another 12 just before I got in the door, just to try and be in good form for everyone ... I would be 'up' after 10 minutes. That lasted for maybe an hour-and-a-half. Then I knew it was time to take more tablets."

His approach was to travel to a particular town, make as many separate visits as he could to every pharmacy, buying a pack of Nurofen Plus at every visit. He would then leave a gap of six to eight weeks before visiting the same town again so as not to arouse suspicion.

John recalls how he would often walk past a pharmacy he had already called into, just to see if the person who had served him was still there; if they were, that was his "cue not to go in" and risk being "barred".

He says he was careful not to ask for more than the maximum amount the pharmacy was legally permitted to sell; again taking care to avoid detection. If possible, he would try and get all the Codeine he needed for three days in the one town. He might then drive to the next town for another three days supply. He found himself making mental notes of all the places he had visited, trying to remember not to go back for a while.

He mentions travelling as far away as Sligo, Cavan, Portlaoise and Galway to buy Codeine: "With the amounts I was using – 21 boxes minimum a week – you couldn't go back immediately [to one chemist] again because of the shame, the embarrassment of being refused tablets because you were here before." Though he feared being refused, he never was.

John recalls the extent to which he normalised his addiction: he "knew the cost of getting the drugs and knew the cost of getting to get them"; he often spent "thirty, forty, fifty euro" in a pharmacy buying products he didn't need, just so he could ask for Nurofen Plus "by the way".

He remembers the night before he left for a short holiday to a country where he knew there were restrictions on sales of over the counter medicines. Satisfied that he had bought enough beforehand to last the whole trip, but worried that all could be lost if his luggage went astray, and conscious that the presence of so many packs of the one painkiller in his hand luggage would prompt questions if he was searched, he and his wife spent an hour pushing the tablets from their blisters into large jars.

Eventually his wife gave him an ultimatum, which prompted him to get help. Over several months, he reduced to between 12 and 14 tablets a day and then he "jumped". He says the withdrawal symptoms were severe and included sweats, anxiety, and an inability to sleep.



John believes Codeine should be prescriptiononly: "I would go through a wall to get my Codeine. I would go anywhere. I would cancel anything. Whether it was family or business. Because I had to have it. I would have done crime to get it in the end, no problem. Codeine is that strong."

That desire for greater control over the supply of Codeine has recently been echoed by Dr John O'Connor, Clinical Director of the Drug Treatment Centre Board, who has published statistics showing that the number on Codeine rehabilitation programmes in Ireland has more than doubled in the space of two years.

According to the figures, 52 Codeine addicts were treated in rehab in 2006, up from 42 in 2004 and from 22 in 2004. The DTCB has found addicts are most likely to be middle-aged, middle-class women looking for a stress reliever from their daily lives.

Separately it has been reported that sales of Solpadeine, a leading brand, rose from €18m to €21m from 2006 to 2007.62







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