LEGISLATIVE ASSEMBLY FOR THE AUSTRALIAN CAPITAL TERRITORY

SELECT COMMITTEE ON DRUGS

2ND INTERIM REPORT

BENZODIAZEPINES AND DEPENDENCE

A Tranquil Addiction?

FEBRUARY 1993

Select Committee on Drugs

Committee membership:

Mr M Moore (Presiding Member)

Mrs K Carnell

Mrs E Grassby

Committee Secretary:

Mr R Owens

RESOLUTION OF APPOINTMENT [1]

(1) A select committee be appointed to inquire into and report on:

(a) the effectiveness of current legal and social controls on drug taking; and

(b) other matters relating to drugs that the Committee considers should be drawn to the attention of the Assembly.

(2) The Committee shall consist of three members.

(3) The Committee shall report on or before the last sitting day of June 1993.

(4) The Committee shall have power to consider and make use of the evidence and records of the Select Committee on HIV, Illegal Drugs and Prostitution appointed during the previous Assembly.

(5) The Committee shall be provided with the necessary staff, facilities and resources.

(6) The foregoing provisions of this resolution, so far as they are inconsistent with the standing orders, have effect notwithstanding anything contained in the standing orders.

1 MoP (1992), No 1, as amended MoP (1992), No 8; MoP (1992), No 35

πεμψαι επ' 'Ατρειδη 'Αγαμεμνονι ουλον 'Ονειρον

(He sent to the Atreides Agamemnon the Dream sinister.)

Homer
Iliad, Book β, *6*

PREFACE

On each of the reports dealing with drugs which have been tabled both in the First and Second Assemblies there has been an effort by the committee members to emphasise the need for controlled availability of illegal drugs. [1]

This report on benzodiazepines and dependence is the first time that this Committee, or its predecessor the Select Committee on HIV, Illegal Drugs and Prostitution, has reported on a drug that is legally and widely available. It is important that the same mistakes that were made with regard to other, illegal drugs, are not repeated with benzodiazepines.

This particular group of drugs has caused some concern in our community in recent years; primarily because of their addictive and dependency characteristics. The benefits of these drugs, however, must be balanced against any disadvantages and adverse side effects so that 'controlled availability' is the principle under which benzodiazepines continue to be available to the general community.

The major concern of the committee in inquiring into the use and abuse of benzodiazepines was the lack of solid ACT related data upon which to draw any valid conclusions concerning current usage, or to be able to make reasonable projections about future usage trends, or to be able to fully identify the appropriate programs necessary to deal with dependence.

Before any legislation is enacted or any of the further administrative arrangements recommended in this report are implemented with regard to benzodiazepines, the epidemiological study recommended by the Committee needs to be completed and statistical data needs to be collected.

On behalf of the Committee I would particularly like to place on the record our appreciation for the forthright and open manner in which Dr Andy Butlin, Director of the Alcohol and Drug Service, consistently assisted us in our inquiries.

I wish also to place on the record my appreciation for the work done by my Parliamentary colleagues on the Committee, Mrs Kate Carnell and Mrs Ellnor Grassby, and my and their appreciation for the work done by the Committee Secretary, Mr Ron Owens.

Finally the Committee expresses its appreciation to those who made submissions to it and appeared before it.

(Michael Moore)
Presiding Member
17 February 1993

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1 Select Committee on HIV, Illegal Drugs and Prostitution –
2nd Interim Report – *A Feasibility Study on the Controlled Availability of Opioids*
3rd Interim Report – *Marijuana and Other Illegal Drugs*

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1. INTRODUCTION

Establishment of committee

1.1 The Assembly appointed a Select Committee on Drugs to inquire into the effectiveness of current legal and social controls on drug taking and other drug related matters on 27 March 1992; [1] the committee was required to report by the last sitting day of 1992.

1.2 On 19 May 1992 [2] the Assembly amended the committee's resolution of appointment to allow it to report from time to time. This followed from a resolution of the committee to inquire into three specific areas namely:

- Methadone;
- Tranquillisers and benzodiazepines; and
- Alcohol and Youth.

1.3 The committee's terms of reference were further amended on 17 November 1992 [3] extending the committee's reporting date until the last sitting day of June 1993 to enable it to complete its inquiries into the problems surrounding youth and alcohol.

Background

1.4 The committee has completed its inquiries into the dispensing of methadone in the ACT, and into the associated Drugs of Dependence (Amendment) Bill 1992 and the Drugs of Dependence (Amendment) Bill (No.3)1992. [4] The committee presented its first interim report, *Methadone Treatment Services in the ACT*, to the Assembly on 15 October 1992. [5]

1.5 Following the recommendations of the committee contained in its interim report the Assembly, on 20 October 1992, passed the Drugs of Dependence (Amendment) Bill (No. 3) 1992 [6] and the Drugs of Dependence (Amendment) Bill 1992. [7]

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[1] MoP (1992), No 1, p 7

[2] MoP (1992), No 8, p 40

[3] MoP (1992), No 35, p 191

[4] These bills were referred to the committee, by the Assembly, on 8 September 1992 for inquiry and report

[5] MoP (1992), No 31, p 165

[6] MoP (1992), No 32, p 173

[7] *Op cit*, p 175

Conduct of the inquiry into benzodiazepine dependence

The reference

1.6 The committee, at its meeting of 16 April 1992, resolved to inquire into and report on problems associated with the use of those tranquillizers known as benzodiazepines; with particular attention to be given to the adverse effect of dependency and to other side effects of these palliative drugs.

Submissions

1.7 Advertisements calling for submissions to the committee's inquiries were placed in *The Canberra Times* of 9, 13 and 16 May 1992; with the submissions to be received by 5 June 1992. For a copy of the advertisement *see* Appendix A. Although the committee received 14 submissions in total, only two submissions concerned the use of benzodiazepines and benzodiazepine dependence. For a list of all the submissions received *see* Appendix B.

Witnesses

1.8 The committee, on 3 September 1992, held a public hearing into methadone treatment and benzodiazepine dependence, at which hearing 10 witnesses appeared. For a list of the witnesses appearing before the committee *see* Appendix C.

Woden Valley Hospital

1.9 On 29 May 1992, with the approval of the Minister for Health, the committee visited the Woden Valley Hospital, where discussions were had with the doctors and staff concerning the provision of support facilities to people who are benzodiazepine dependent.

Interstate visit

1.10 During the course of its overall inquiries the committee visited Sydney over the period 3 – 5 June 1992. With the prior approval of the Premier of NSW the committee held discussions with Dr M MacAvoy of the Alcohol and Drug Directorate. The committee also visited the Louisa Lawson Centre, Arncliff, a mental health and therapy centre which takes an holistic approach in providing services to women in crisis and emotional distress. The centre provides, amongst other services, a minor tranquilliser clinic for women who are using, or withdrawing from, benzodiazepines.

Conference

1.11 In July 1992 Mrs Carnell, a member of the committee, and the committee secretary, attended the 5th Winter School in the Sun Drugs Conference, held in Brisbane. Of particular relevance to this inquiry was a presentation at that conference by Dr Andrea Mant on Benzodiazepine dependence.

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2. PHARMACOLOGY, USAGE, ADVERSE EFFECTS AND DEPENDENCE

Introduction

2.1 A review of both the literature available to the committee and the evidence given before it has substantiated the committee's concern that there are a number of major problems associated with the use of benzodiazepines. These include a number of serious adverse side effects and the potential for users to become dependent. The purpose of this chapter is to identify, to the best of the committee's ability, the scope of those problems.

Pharmacology

2.2 The development of benzodiazepines came about as a result of research interests which focused on tranquillisers in the late 1950's. They were discovered as the result of an unexpected chemical rearrangement observed when a synthetic procedure that had been expected to yield a certain complex organic nitrogen compound – a quinazoline derivative – gave instead another product, which proved to be a benzodiazepine. The toxic effects of which were found to be very low giving the drugs a wide safety margin particularly with respect to overdosing. It was this safety margin which led, primarily, to benzodiazepines replacing barbiturates as a therapeutic tool. (The barbiturate doses need for therapeutic effects are very close to toxic doses.) Benzodiazepines were first introduced onto the market in the 1960's.

The benzodiazepines

2.3 Benzodiazepines belong to that class of palliative drugs known as psychotherapeutic agents and are either sub classified as both anxiolytic sedatives and as hypnotics or sub classified according to their duration of action – short acting (a half life of less than ten hours), intermediate acting (a half life of ten to fifty hours) or long acting (a half life greater than fifty hours). There are 14 drugs in the benzodiazepine group dispensed under a wide range of brand names (*see* Table 1).

How benzodiazepines work

2.4 Benzodiazepines are a central nervous system depressant and they do this by binding to specific receptor sites in the limbic, thalamic and hypothalamic areas of the central nervous system. The action of the benzodiazepines in binding to these receptor sites enhances the effects of one of the brain's neuro–transmitters, gamma–aminobutyric acid (GABA); which is an inhibitory transmitter not an excitatory one. Enhancement of GABA action causes damping of

excitatory impulses in the area where binding occurs. The therapeutic activity of a benzodiazepine is directly related to the half life of the drug and any active metabolites that are formed.

Usage

2.5 Benzodiazepines are used for a variety of applications which are associated with their ability to depress the central nervous system. At low dosages all drugs in the group have the capability of producing an anti–anxiety effect. As the dosage increases, further centres in the central nervous system are affected. Depending on the dose used, the effects on the central nervous system range from sedation to muscular relaxation through to suppression of convulsions. Further, higher, doses can produce anaesthetised states and even comatose states. Properties of central nervous system depression increases as the doses increase. Benzodiazepine drugs used for their anti–anxiety effects may give the user unwanted sedative effects if dosages continue to be too high. Also doses required for anti–convulsant properties may further cause unwanted sedation. [1]

Table 1

BENZODIAZEPINES

Generic Name	Brand Name
Alprazolam	Xanax
Bromazepam	Lexotan
Chlordiazepoxide	Librium, Librax (part of)
Clobazam	Frisium
Clonazepam	Rivoltril
Clorazepate	Tranxene
Diazepam	Antenex, Diazemuls, Ducene, Pro–pam, Valium
Flunitrazepam	Hypnodorm, Rohypnol
Flurazepam	Dalmane
Lorazepam	Ativan
Nitrazepam	Alodorm, Dormicum, Mogadon
Oxazepam	Alepam, Benzotran, Murelax, Serepax
Temazepam	Euhypnos, Normison, Temaze
Triazolam	Halcion

Source: Australian Pharmacist, Vol 11, No. 3, June 1992

Sleep disorders

2.6 Commonly, benzodiazepines are used to manage sleep disorders in patients and also for their anti–anxiety properties. Doses required to manage sleep disorders are normally somewhat higher than those doses required for the anti–anxiety effects. The benzodiazepines depress REM (rapid eye movement) sleep to a much lesser extent than other sleep inducing agents such as

[1] Robinson, M T, S I Benrimoj, 'The Use and Adverse Effects of Benzodiazepines Part 1: Classification and Use' in *Australian Pharmacist*, Vol 11, No 3, June 1992, pp 182–183

barbiturates. Nevertheless, it is thought by researchers that this suppression of REM sleep may account for the rebound insomnia suffered by patients who withdraw from their benzodiazepine therapy too quickly.

Anxiety

2.7 Benzodiazepines are used in the lower dosage range to combat anxiety, both acute (*eg* death of a loved one or fear of a particular circumstance) and chronic disorders (*eg* panic attacks, phobic disorders). Choice of benzodiazepine therapy is normally based on pharmacokinetic data. Short acting benzodiazepines (*ie* those whose half life is ten hours or less) are used for acute anxiety states while longer acting benzodiazepines (*ie* those whose half life is more than fifty hours) are used for chronic disorders.

Convulsions

2.8 Nearly all central nervous system depressants have some ability to suppress convulsions as central depression inhibits the spread of excitatory stimuli associated with convulsions. All the benzodiazepines are used as adjuncts to other anti–convulsant therapy and are not normally useful as sole therapy.

Other

2.9 Benzodiazepines have been used to lessen the intensity of symptoms of alcohol withdrawal. Use of longer acting benzodiazepines allows less likelihood of reappearance of these symptoms. They have also been used as an adjunct to anaesthesia and also for minor investigative procedures. Skeletal muscle relaxation effects of these drugs may also prove advantageous in procedures such as tracheotomy.

Muscle relaxant effects

2.10 Tension headaches have been treated with benzodiazepines although these drugs are not first line therapy for this condition. These headaches are associated with tightening of musculature in the neck and head, and the muscle relaxant effect of the benzodiazepines can relieve these contractions. Benzodiazepines can be prescribed for muscle spasms associated with inflammation of muscles or joints, or after local trauma. They are also prescribed for muscle spasticity for patients with cerebral palsy or with paraplegia. Muscle relaxant properties of benzodiazepines have been used for controlling peripheral tremor in the elderly or in familial conditions.

Adverse effects

Serious and less serious side effects

2.11 Benzodiazepines are relatively free of commonly occurring side effects, with those that are reported only rarely occurring. They have a wide therapeutic safety margin with high survival rates being recorded for users who overdose either inadvertently or intentionally.

2.12 The serious side effects of benzodiazepine are:

- behavioural problems;
- confusion and impaired memory;
- paradoxical reactions
  (hallucinations, sleeping difficulties, unusual excitement);
- mental depression;
- muscular weakness;
- hypersensitivity reaction
  (skin rash, itching, blood dyscrasias). [2]

2.13 The less serious side effects are:

- gastrointestinal upset;
- blurred vision;
- dryness of the mouth;
- euphoria;
- fast or pounding heart;
- urination difficulties. [3]

Side effects for women

2.14 According to the NHMRC women do have a greater likelihood of being prescribed benzodiazepines; and they give the following reasons:

- women consult their doctor more frequently than men;
- women comprise a greater proportion of the elderly population which has a higher level of benzodiazepine consumption compared with younger populations;

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[2] Robinson, M T, S I Benrimoj, 'The Use and Adverse Effects of Benzodiazepines Part 2: Adverse Effects', in *Australian Pharmacist*, Vol 11, No 5, October 1992, p 307

[3] *Ibid*, p 308

- there is a high prevalence of anxiety disorders and affective disorders amongst women compared with men. [4]

2.15 The sex differentiation of the final point quite possibly reflects a combination of psychosocial and biological factors. It should be remembered that the levels of expressed anxiety, distress and substance abuse disorder reflect a variety of psychosocial issues. These include the role expectations of women, their socioeconomic status and other forms of social discrimination. A woman, however, is no more likely to become dependent on benzodiazepines than a man when given the same dose for a similar period of time. [5]

Pregnancy and lactation [6]

2.16 There have been reports of a benzodiazepine association with oral clefts and a syndrome of a characteristic dysmorphism, growth retardation and central nervous system dysfunction, similar to the foetal alcohol syndrome. However, the question of the teratogenecity (*ie* the capacity to produce foetal abnormalities) of benzodiazepines is yet to be clearly elucidated.

2.17 The foetus and the newborn are less able to metabolize benzodiazepines than adults. Therefore, regular maternal benzodiazepine use late in pregnancy may cause central nervous system depression in the neonate, which can be manifested as hypothermia, hypotonia and respiratory depression.

2.18 Benzodiazepines are excreted in breast milk during lactation and thus can accumulate in the infant's body fat. Central nervous system depression can be significant when higher maternal doses are given, or if the infant is premature or ill.

2.19 Other side effects for women include:

- endocrine dysfunction with reports of menstrual irregularities and increases in plasma cortisol, prolactin and growth hormone;
- sexual dysfunction with reports of decreased libido and impaired orgasm;

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4 National Health and Medical Research Council, *Guidelines for the prevention and management of benzodiazepine dependence*, Monograph Series No 3, AGPS, Canberra, 1991, p 18

5 NHMRC, *op cit*, pp 18–19

6 *Ibid*, pp 23–24

- other miscellaneous effects (which are also found in men) include weakness, headache, blurred vision, vertigo, nausea and vomiting, epigastric distress and diarrhoea;
- more rarely, joint pain, skin rash, agranulocytosis and hepatotoxicity.

Dependence

2.20 The major concern with benzodiazepine therapy, however, is the adverse effect of dependence. Dependence is more likely to occur at high doses over sustained periods of time, but dependence has been reported as occurring after only six weeks of therapy at normal dosage ranges. People who are taking single night doses of shorter acting benzodiazepines may also be at risk of developing a physiological dependence. Because these short acting drugs are rapidly eliminated, the benzodiazepine levels in the blood fall quickly and thus symptoms of withdrawal may appear during the day. [7]

2.21 According to the literature there are two recognised medical categories of benzodiazepine dependence:

(*a*) physiological dependence; and

(*b*) benzodiazepine dependence syndrome.

Physiological dependence

2.22 Physiological dependence on benzodiazepines is defined by the presence of a withdrawal syndrome on discontinuance of the drug. Withdrawal symptoms can appear after cessation of treatment in subjects taking normal doses, for a duration of one week. This manifests as rebound insomnia resulting from the suppression of REM sleep.

2.23 The symptoms of benzodiazepine withdrawal are:

- Psychological symptoms of anxiety and depression
  - apprehension, irritability, insomnia, dysphoria, hopelessness
- Somatic symptoms of anxiety
  - tremor, palpitations, vertigo, sweating, muscle spasms, panic attacks
- Perceptual disturbance
  - hypersensitivity to light, sound, touch
  - abnormal body sensations, *eg* feelings of motion, metallic taste

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7 Robinson, *Australian Pharmacist*, June 1992, p 181

- depersonalization and derealization
- persecution ideas, delusional beliefs

- Neurological complications
  - focal or generalised seizure. [8]

2.24 Physiological dependence in people using benzodiazepines as prescribed by their doctor appears to be a far more common occurrence than previously realised and is more common than the full benzodiazepine dependence syndrome.

Benzodiazepine dependence syndrome

2.25 Benzodiazepine dependence syndrome describes a cluster of cognitive, behavioural and physiological symptoms which indicate that a person has impaired control of their benzodiazepine use and will continue to use benzodiazepines despite the adverse consequences. This group often experience significant tolerance which can be defined as:

- cases where a given dose of drug produces a decreased effect following repeated administration; or
- cases where increasingly larger doses of drug must be taken to achieve the same effect achieved by the original dose.

2.26 In those people who exhibit or present with the full dependence syndrome, substance seeking behaviour becomes prominent. Such people may increase their dose and go to different doctors and different pharmacies to obtain their supplies of benzodiazepines. Some people in this group are initially started on benzodiazepines by their doctor for insomnia or anxiety, while others commence benzodiazepine usage with the initial objective of obtaining a 'high'. It is an important consideration for the treatment of benzodiazepine dependence that people in this group often abuse a number of different substances.

2.27 A person is regarded as presenting with the full benzodiazepine dependence syndrome if they exhibit at least three of the following symptoms:

- substance often taken in larger amounts or over a longer period of time than the person intended;
- persistent desire or one or more unsuccessful efforts to cut down or control substance use;
- a great deal of time is spent in activities necessary to get substance, taking the substance, or recovering from its effects;

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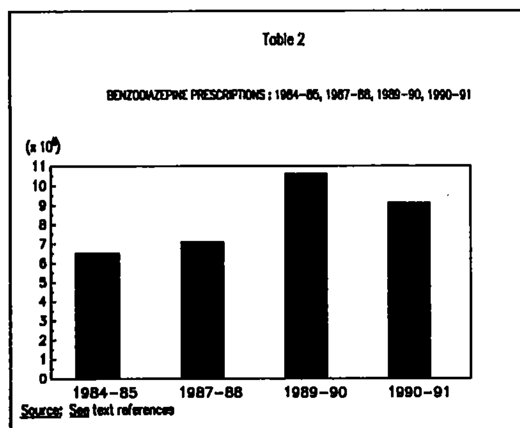
[8] NHMRC, *op cit*, p 4

- frequent intoxication or withdrawal symptoms when expected to fulfil major role obligations at work, school or home, *eg* sedated at work, or when substance use is physically dangerous, *eg* driving;
- important social, occupational or recreational activities given up or reduced because of substance use;
- continued substance use despite knowledge of having a persistent or recurrent social, psychological or physical problem that is cause or exacerbated by the use of the substance;
- marked tolerance: need for markedly increased amounts of the substance; *ie* at least a 50% increase, in order to achieve intoxication or the desired effect;
- characteristic withdrawal symptoms;
- substance often taken to relieve or avoid withdrawal symptoms. [9]

The scope of the problem

2.28 In the year 1984–85 6.5 million prescriptions were written for benzodiazepines in Australia; [10] in 1987–88 there were 7.1 million prescriptions; [11] and in 1989–90 an estimated 10.6 million prescriptions were written and dispensed for these drugs. [12] This represents a 63% increase in prescribing over 5 years. However, 1991–92 saw a 14% fall in the number of prescriptions to 9.1 million. [13] These overall trends are reflected both in the number of prescriptions being issued under the Commonwealth's Pharmaceutical Benefits Scheme (PBS) and also in figures for the Defined Daily Dose (DDD) per 1000 of the population per day. For a general analysis of prescriptions under the PBS over the longer period of 1978–79 to 1991–92 *see* Table 3; and for an analysis of the DDD figures for each quarter from March 1990 to March 1992 *see* Table 4.



2.29 According to the National Health Survey of 1989–90 some 350,000 people were

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[9] *Ibid*, p. 5

[10] *Ibid*, p 17

[11] Carey, D L, *et al*, 'An attempt to influence hypnotic and sedative drug use' in *Medical Journal of Australia*, Vol 156, March 16, 1992, p 392

[12] Department of Health submission, dated June 1992, p 15

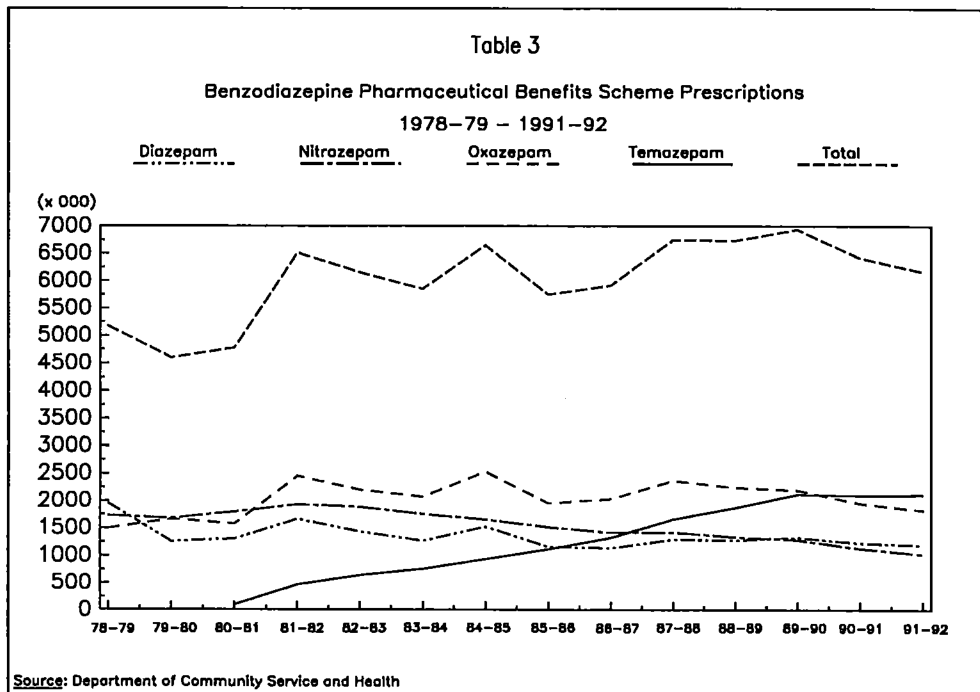
[13] Advice from the Commonwealth Department of Community Services and Health

short term users of tranquillizers (*ie* had used a tranquillizer two weeks prior to interview) and 225,500 people were long term users of tranquillizers (*ie* were taking tranquillizers daily for six months or more). [14] Of the long term users 137,100 were women and 88,400 were men. The short term usage ratio male:female is given as 1:3.3 and the long term usage ratio male:female is given as 1:1.6.

Table 3

Benzodiazepine Pharmaceutical Benefits Scheme Prescriptions

1978–79 – 1991–92



Source: Department of Community Service and Health

2.30 The National Health and Medical Research Council (NHMRC), in its Monograph *Guidelines for the prevention and management of benzodiazepine dependence*, has estimated that 45% of Australian long term users are physiologically dependent on their benzodiazepine medication. [15]

2.31 The Department of Health, in its submission to the committee, concluded (*a*) that women have a greater tendency than men to use tranquillizers in the short term; and (*b*) that there is no evidence to suggest that doctors prescribe long term benzodiazepines more to women than to men. [16] The committee, however, has interpreted the data a little differently.

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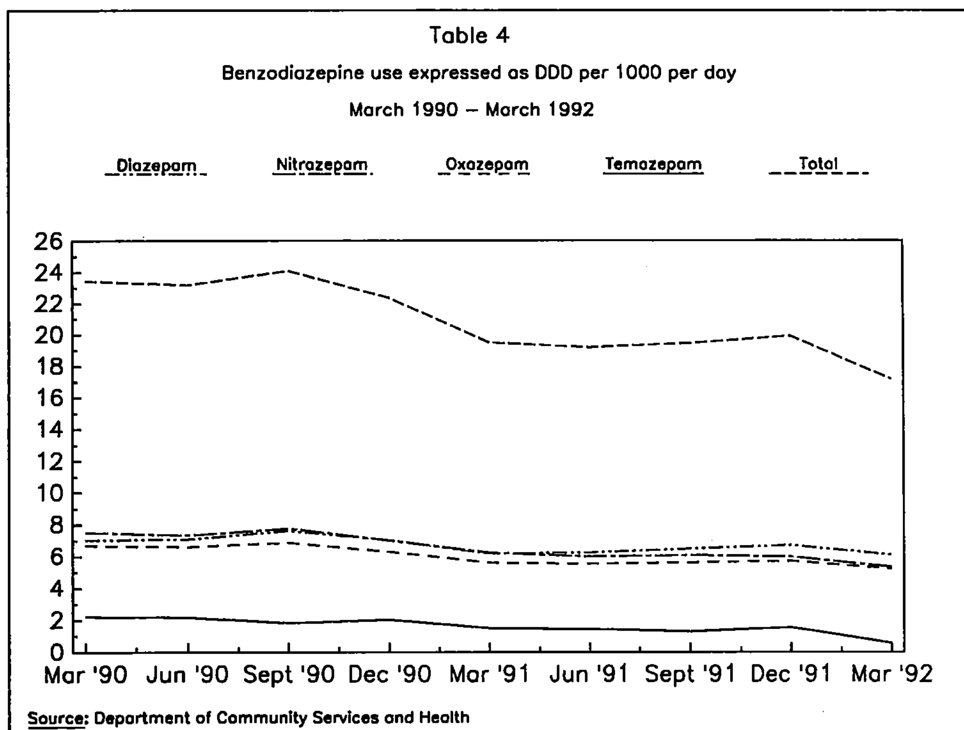
14 Department of Health submission, dated June 1992, p 15

15 NHMRC, *op cit*, p 18

16 Department of Health submission, dated June 1992, p 15

2.32 The male:female ratio for short term use of 1:3.3 suggests to the committee that it is **doctors** who have a greater tendency to prescribe short term tranquillizers to women than they do to men, rather than only suggesting, as the Department of Health assumes it does in its submission, [17] that women simply have a greater tendency to use what is, after all, a prescription drug.



2.33 The raw data of the 1989–90 National Health Survey, which shows 48,700 more women than men (*ie* 55% more women than men) being involved with long term use, also suggests to the committee that there is evidence to indicate that doctors are prescribing long term benzodiazepines to women more than they are to men.

Hospitals

2.34 Some concern is expressed in the literature that admission to hospital can be a contributing factor in a person becoming benzodiazepine dependent; particularly where there is routine prescribing on admission, continuous administration during hospitalization and the issue

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17 *Loc cit*

of a ten–day supply on discharge. Such an administration regime is capable of putting a person at risk of dependence should it extend over a period of three or more weeks.

2.35 Two hospitals in Australia, the Fremantle Hospital, WA (in 1989), [18] and St Vincent's Hospital, Sydney (in 1985, 1986), [19] have reviewed their benzodiazepine prescribing protocols and published the results of those reviews. Both hospitals have change their protocols with respect to benzodiazepine prescriptions and engaged in continuing education in promoting more rational drug use.

Managing dependence [20]

2.36 According to the NHMRC there is a general consensus that most long term users of benzodiazepines gain little from their treatment, apart from the prevention of withdrawal symptoms, and that they should be encouraged to stop using benzodiazepines. [21]

2.37 The urgency of withdrawal depends greatly on the individual risks associated with the continuing use; but it is practical to commence a withdrawal program at a time when the life of the long term user demonstrates a fair degree of stability. The NHMRC, in their monograph, present the following suggested regime to manage benzodiazepine withdrawal.

2.38 An individualised reduction timetable should be planned for each person. But, in general, each dosage reduction should be small and occur at approximately a weekly rate. If significant withdrawal symptoms are experienced the overall rate can be controlled by making either (*a*) smaller dosage reductions or (*b*) less frequent reductions. The NHMRC advise that experience suggests that a weekly decrease of approximately 15% of the previous week's dose works well. It is important to prescribe the benzodiazepine at fixed times as this breaks the feeling anxious/gaining relief cycle. If divided into three daily doses, it is common practice to begin the withdrawal process with a reduction in the luncheon dose by one increment, then the morning dose by an increment and then the evening dose by one increment. The cycle is repeated so that the evening dose is the last to be stopped.

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18 Blackbourn, J and J Lake, 'Benzodiazepines: Are hospitals contributing to benzodiazepine dependence?' in *Fremantle Hospital Drug Bulletin*, Vol 13, No 6, November/December, 1989, pp 26–29

Blackbourn, J, 'Benzodiazepines: Avoiding the Hypnotic Habit' in *Fremantle Hospital Drug Bulletin*, Vol 15, No 1, January/February, 1991

19 Carey, *et al*, *op cit*

20 NHMRC, *op cit*, pp 11–16

21 *Ibid*, p 11

2.39 Whether or not this regime or another is followed it is important that the benzodiazepine withdrawal be slow and be individualised.

ACT legal controls

2.40 In the ACT benzodiazepines are only subject to those controls over prescribing and dispensing which are applicable to any of the drugs listed in Schedule 4 of the *Poisons and Drugs Act 1978.*

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3. AN ACT PERSPECTIVE

The pharmacopoeia

3.1 The committee is aware of the great therapeutic value of benzodiazepines in the palliative treatment of anxiety and stress related disorders and as a muscle relaxant; particularly when appropriately prescribed by a doctor, appropriately dispensed by a pharmacist and appropriately used by the patient. The committee thus readily accepts the fact that there remains an important place for benzodiazepines in the pharmacopoeia.

Research

Statistical data base

3.2 During the course of its inquiries into the use of benzodiazepines in the ACT the committee was concerned at the lack of ACT research material on this matter. Other than extrapolation from national trends and national data no ACT figures are available for:

- the number of benzodiazepine prescription issued per annum;
- the Defined Daily Dose (DDD) per 1000 per day;
- the number of long term users;
- the number of short term users; nor
- the numbers who are physiological dependent or suffering with Benzodiazepine Dependence Syndrome.

3.3 And consequently there is no access to an age profile of users; no access to male:female ratios; and no access to drug – medical condition relationships.

3.4 If there is a benzodiazepine 'problem' then without access to this detailed statistical information it is difficult to assess the level of the 'problem' in the ACT and, consequently, difficult to assess the level of response required to monitor, control or alleviate that 'problem'.

3.5 If the ACT, as a self governing entity, is to offer its citizens assistance in the prevention and management of benzodiazepine dependence then the ACT needs an accurate and up to date data base on benzodiazepine use. It is the view of this committee that a reliance solely on extrapolation from national trends and national data is insufficient given that:

(*a*) some aspects of dependence are most likely to be peculiar to the ACT;

(*b*) rounding off of such trends and data might, and probably will, disguise variables important to the ACT; and

(*c*) the demographics of the ACT are not duplicated elsewhere in the country.

3.6 It is the opinion of the committee, therefore, that a comprehensive epidemiological study on benzodiazepine usage, including prescribing and dispensing practices, be commissioned and that the Department of Health maintain quarterly statistics both on all prescriptions written and dispensed for benzodiazepines and on the Defined Daily Dose per 1000 of the population per day.

3.7 The epidemiological study should become the basis for establishing a management plan for dealing with benzodiazepine dependence in the Territory and the quarterly statistics should be used to monitor the ongoing implementation of that management plan.

Recommendation 1

3.8 The committee recommends:

That a comprehensive epidemiological study on benzodiazepine usage, including prescribing and dispensing practices, in the ACT be commissioned by the ACT Department of Health.

Recommendation 2

3.9 The committee recommends:

That the ACT Department of Health maintain quarterly statistics on –
(*a*) all prescriptions written and dispensed for benzodiazepines; and
(*b*) the Defined Daily Dose per 1000 of the population per day.

Recommendation 3

3.10 The committee recommends:

That the ACT Department of Health establish, implement and maintain a management plan for dealing with benzodiazepine dependence.

Hospital based research

3.11 Earlier in this report the committee made reference to the possibility of hospitals being a contributing factor to the onset of dependence, and to two hospital surveys on hospital based benzodiazepine prescription protocols (*see* p 13). The committee believes there would be great merit in both the Woden Valley Hospital and Calvary Hospital conducting a similar survey of their benzodiazepine prescription protocols to assess the impact of

(*a*) hospital administered benzodiazepines on the acquisition of either physiological dependence or the Benzodiazepine Dependence Syndrome; and

(*b*) hospital based educational programs on the prescription and use of benzodiazepines.

Recommendation 4

3.12 The committee recommends:

That the Woden Valley Hospital and Calvary Hospital conduct a survey of their benzodiazepine prescription protocols to assess the impact of: -

(*a*) hospital administered benzodiazepines on the acquisition of either physiological dependence or the Benzodiazepine Dependence Syndrome; and

(*b*) hospital based educational programs on the prescription and use of benzodiazepines.

National statistical data

3.13 The committee would also like to voice some concerns with the national statistical data which it has had recourse to in the preparation of this report. Both the benzodiazepine prescription national data (*see* Table 2, page 11) and the benzodiazepine PBS prescriptions national data (*see* Table 3, page 12) show a downward trend in the number of prescriptions issued over the last two years for which figures are available. It is important to note, in the committee's opinion, that such downward trends have occurred in the past with a following upward trend of greater intensity. The period 1982–83 – 1983–84 saw a down trend in PBS prescriptions, but 1984–85 saw a rise above the pre 1981–82 levels; and again in 1985–86 there was a marked decline in prescriptions, but by 1987–88 the level of prescriptions was once again above the pre 1984–85 level.

3.14 The post 1989–90 decline in prescription levels is encouraging, but, in the opinion of the committee, caution must still be exercised and educative programs for medical practitioners, dispensing pharmacist and the general public must be maintained if the level of benzodiazepine use is to continue to fall.

Education programs

3.15 A crucial strategy in preventing problems associated with the prescribing protocols related to the benzodiazepines is the raising of the awareness of the health community as a whole about the appropriate use of these drugs. A position fully supported by the Department of Health in its submission to the committee. [1]

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1 Department of Health submission, dated June 1992, p 16

3.16 As part of a comprehensive Primary Care Strategy, which the Department of Health is currently developing, there are initiatives which include the provision of training to general practitioners in the community and doctors in the hospitals on alternative methods (*ie* relaxation and anger management) to deal with stress related disorders such as simple counselling techniques, appropriate withdrawal regimes, and the taking of detailed histories on sleep disturbances. [(2)]

Medical practitioners

3.17 The committee has given serious consideration to the question of educative programs as a tool to be used in the controlling of benzodiazepine usage. Given the apparent fall off in prescriptions since 1989–90, it does appear that peer education amongst medical practitioners has had a significant impact on the number of prescriptions being written for these drugs, in the short term at least. (*see* Tables 2 and 3). A point also made by Dr Mant at the 5th Winter School in the Sun Drugs Conference, Brisbane, in July 1992.

3.18 A note of concern, however, was expressed by Dr Butlin, who said in evidence before the committee:

> The notion that educating our health community will somehow solve the problem, I think, in historical terms at least, has not proven to be fabulously successful, although I recognise that we are in the early days. [(3)]

Dr Butlin also expressed some concern that a change in benzodiazepine prescribing merely substitutes one substance for another:

> Unfortunately, if you look at the changes in prescribing patterns, although benzodiazepines use might be on the decline, there are already some suggestions that other substances may be taken up instead. That seems to have been the pattern; that prescribing tends to switch from one substance to another. [(4)]

3.19 Dr Powell, in an attachment to the submission from the Australian Medical Association, also expressed some concern at the efficacy of internal education programs. In support of his concern he cited a household survey conducted in the Newcastle area and, in his words, disturbing features for the medical profession included:

- 83% of benzodiazepines were general practitioner prescribed;
- 56% of patients did not specifically request a benzodiazepine;

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2 *Op cit*, p 18

3 Transcript, 3/9/92, p 70

4 *Ibid*, p 71

- 48% of patients were prescribed a benzodiazepine at the first presentation of the problem,
- 58% of patients were offered no alternative; and
- 54% of patients did not recall being warned of possible side effects. [5]

3.20 Doctor Powell, however, went on to say:

> The medical profession must continue with its internal educational program on the need to prescribe judiciously and for the profession to have input into educational publicity aimed at consumers on their need to look for alternatives to the quick fix of a BZD. [6]

3.21 Another matter that would, in the opinion of the committee, seem indicative of a less effective educative program for medical practitioners is the very apparent sex bias in their prescribing practices. According to the National Health Survey of 1989–90 doctors continue to have a greater tendency to prescribe benzodiazepines to women than they do to men. The male:female ratio for short term usage was 1:3.3 (*ie* 87,000 men and 262,000 women) and the long term usage ratio male:female was 1:1.6 (*ie* 88,400 men and 137,100 women) (*see* paragraphs 2.28, 2.31 and 2.32).

3.22 The committee, however, fully endorses the current practice of the Department of Health of frequently issuing warnings and reminders to medical practitioners on the problems associated with benzodiazepine dependence. The Department has also issued the NHMRC's monograph on benzodiazepine dependence to medical practitioners.

Hospital staff

3.23 Nonetheless, despite the above concerns, the research literature available to the committee suggests that educative programs are effective, at least in the hospital environment, in reducing benzodiazepine prescription. The benzodiazepine use in inpatients survey undertaken at Fremantle Hospital, by Blackbourn, *et al*, showed the following results:

- in April 1989 13% of patients were discharged with benzodiazepine medication for 10 days;
- in November 1990 this had fallen to 6%; and
- in November 1991 this had fallen a further 1% to only 5% of patients being discharged with benzodiazepine medication for 10 days. [7]

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5 Australian Medical Association, ACT Branch, submission, dated 29 June 1992

6 *Loc cit*

7 Blackbourn, *op cit*

3.24 The 1985 and 1986 surveys carried out at St Vincent's Hospital, Sydney, concluded that the education of staff had a considerable impact on the administration of benzodiazepines by nursing staff and their prescribing by medical staff. The education of patients resulted in an increase in drug knowledge but had little impact on patient drug use in hospital. A postal survey conducted three months after discharge from hospital, however, showed a significant reduction in hypnotic and sedative drug use amongst those patients exposed to the educational campaign. A major conclusion of the surveys was the importance of continuing education in promoting more rational drug use. [(8)]

Pharmacists

3.25 Peer education for pharmacists over a wide range of issues is carried out in a number of ways including accreditation programs organised through the ACT Sub Branch of the Pharmaceutical Society of Australia and Continuing Education Self Assessment Exercises which appear in the journal *Australian Pharmacist.* Of particular interest and assistance to this inquiry was an article on benzodiazepines which appeared in two parts in the June and October 1992 issues of that journal.

3.26 The committee acknowledges that it is not the role of the pharmacist to second guess the medication choice medical practitioners make for their patients. Pharmacists do, however, in the committee's opinion, have a duty of care to advise patients on the adverse effects, if any, of the medication they are dispensing; and they do, in the terms of this inquiry, have an important role to play in detecting dependency on and abuse in using benzodiazepines. In answer to a question given before the committee the Pharmaceutical Society acknowledged their role in this area:

> It is certainly an ethical requirement. As part of our duty of care, if we perceive any drug misuse pattern, we take note of it, we talk to the prescriber, and we probably talk to colleagues. Indeed, we have an informal network in the Territory and we will do a ring around if a problem is arising with forged prescriptions or multiple scripts. [(9)]

3.27 This point was further emphasised by the Department of Health in its submission to the committee, where it indicated that its Pharmaceuticals Section regularly reminds pharmacists of a duty of care to their customers and to the community in that they have a professional obligation to query a prescription or to report a possible problem, if they believe a drug is being misused or abused. [(10)]

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8 Carey, *et al, op cit,* p 389

9 Transcript, 3/9/92, p 22

10 Department of Health submission, dated June 1992, p 17

The general public

3.28 Over the last twenty or so years there has been a definite change in the attitude by the public toward information on the side effects of drugs, and the Department of Health, in its submission to the committee has advised that it strongly supports strategies which enable people to make informed choices about their medical treatment and to choose alternative health strategies where that is appropriate. In support of this philosophy the Department sees public information on benzodiazepines that is available through information packages from the Health Advancement Service, Alcohol and Drug Services and the Pharmaceuticals Section as important components in an education and prevention approach in this area. [(11)]

Future role

3.29 It is the committee's belief that the Department of Health should continue to encourage the broad health community in their ongoing reviews of benzodiazepine prescribing and dispensing protocols, and should continue to issue reminders to them of their responsibilities and duties of care to the general public with respect of these drugs. The committee is also of the opinion that the public information which is available through information packages from the Health Advancement Service, Alcohol and Drug Services and the Pharmaceuticals Section of the Department of Health is meeting the public education need, although emphasis needs to be placed on the adverse side effects which are particularly related to women.

3.30 There is one particular education area, however, in which the committee would like to see greater cooperation between doctors, hospital staff, pharmacist and the Department of Health, and that also concerns the prescribing of benzodiazepines to women.

3.31 Although the committee has already acknowledged the dangers of extrapolating from national data (*see* paragraph 3.5) it is nonetheless concerned that the evidence available to it indicates a disturbing propensity to prescribe benzodiazepines to women where men in similar medical situations are more likely to be exposed to a different, and possibly more sophisticated, treatment modality. These reasons for this bias appear to include the role expectations of women, their socioeconomic status and other forms of social and medical discrimination. [(12)] It is thus important that the epidemiological study, recommended at paragraph 3.8, and the study of

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[11] *Loc cit*

[12] NHMRC, *op cit*, p 18

hospital prescribing protocols, recommended at paragraph 3.12, be conducted to clarify, *inter alia*, this apparent gender bias.

3.32 Whilst recognising the independence of all the major ACT health professional bodies, the committee, nonetheless, sees some benefit in the ACT Branch of the Australian Medical Association, the ACT Sub–Branch of the Pharmaceutical Society of Australia, ACT Nurses Registration Board and the Department of Health conducting a coordinated education campaign for benzodiazepine prescribers and dispensers highlighting this gender bias with the specific aim of:

(*a*) assessing the extent of the gender bias indicated by the numbers of women treated with benzodiazepines;
(*b*) strongly suggesting alternative treatment strategies for women;
(*c*) pointing out the specific side effects for women, including those that can occur during pregnancy and lactation; and
(*d*) emphasising the need for, and the right of, female patients to be advised of these gender related side effects.

Recommendation 5

3.33 The committee recommends:

That the ACT Branch of the Australian Medical Association, the ACT Sub–Branch of the Pharmaceutical Society of Australia, the ACT Nurses Registration Board and the Department of Health consider conducting a coordinated and continuing education campaign for benzodiazepine prescribers and dispensers highlighting the benzodiazepine treatment gender bias with the specific aim of:

(*a*) assessing the extent of that gender bias as indicated by the numbers of women treated with benzodiazepines;
(*b*) strongly suggesting alternative treatment strategies for women;
(*c*) pointing out the specific side effects for women, including those that can occur during pregnancy and lactation; and
(*d*) emphasising the need for, and the right of, female patients to be advised of these gender related side effects.

Support mechanisms

3.34 There are a number of support mechanisms available in the Territory for those who are seeking assistance in either controlling or ceasing their dependence on benzodiazepines, including both government and non government agencies.

Government agencies

3.35 The prime government agency is the Alcohol and Drug Service of the Department of Health. Early intervention strategies in the treatment of dependence are implemented through the twenty four hour telephone line at the Service and through brief intervention counselling at the Service's Community Unit. In addition the Detoxification Unit at Woden Valley Hospital provides a medically supported withdrawal program for a range of clients.

3.36 In 1989 the Service developed a six to eight week structured program called COPE. The program runs twice yearly. Each potential client is assessed before joining the program and, where appropriate, referrals are made to medical practitioners to manage the more complex physical withdrawal symptoms. People entering the program are usually long term users who have chosen to give up their benzodiazepine dependence. While people slowly reduce their dosages, the COPE group introduces stress and anxiety management strategies such as rational emotive therapy, assertiveness training, relaxation techniques, good nutrition and long term coping strategies. [13]

Non government agencies

3.37 The Alcohol and Drug Service, through the Alcohol and Drugs Services Grants Program, also funds a number of non government agencies which offer to the community a variety of treatment options for problems associated with the use of, and dependence on, benzodiazepines. None of these services, however, are stand alone benzodiazepine dependence recovery services. The three major non government agencies concerned with benzodiazepine dependence are:

- *Karralika Therapeutic Community* which provides long term rehabilitation for people who have a variety of drug problems, including problems associated with tranquillizer and benzodiazepine use;
- *The Drug Referral and Information Service* which provides counselling and education services to a clientele with a range of problems including tranquillizer and benzodiazepine use; and
- *Toora Single Wimmin's Shelter* which provides women only counselling, information, referral and training for women with a variety of drug problems, including problems associated with tranquillizer and benzodiazepine use.

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13 Department of Health submission, dated June 1992, p 18

Needs

Referral centre

3.38 The socio–demographics of benzodiazepine dependent people is such, in the opinion of the committee, as to recommend that benzodiazepine management and withdrawal programs be separate and, if possible, physically isolated from alcohol withdrawal programs and from illicit drug dependency programs. However, without the data to be supplied by the recommended epidemiological study it is difficult to identify and assess the needs that are to be met in assisting those who are benzodiazepine dependent and, consequently, difficult to structure appropriate programs.

3.39 Nonetheless the committee is concerned to ensure that, within the wide range of drug referral services offered by the Department of Health, an independent and separate benzodiazepine referral centre be established to meet the varying and specific needs of benzodiazepine dependent people.

Recommendation 6

3.40 The committee recommends:

That the Department of Health investigate the establishment of an independent and separate Benzodiazepine Referral Centre.

Funding of Non government agencies

3.41 The broad alternative referral services offered by the non government agencies is, in the opinion of the committee, an important community service for those people who, for what ever reason, feel uncomfortable in dealing with Government agencies. The committee is concerned, therefore, to ensure that those non government agencies which offer benzodiazepine dependency support programs and are funded through the Alcohol and Drugs Service Grants Program continue to be funded, and, where appropriate and if possible, that funding should be increased.

Recommendation 7

3.42 The committee recommends:

That those non government agencies, funded through the Alcohol and Drugs Service Grants Program, which offer clients a variety of treatment levels for problems associated with the use of, and dependence on, benzodiazepines continue to be funded.

COPE Program

3.43 Whilst acknowledging once again the paucity of the data on the number of benzodiazepine dependent people in the ACT, the committee, having been briefed on the COPE Program, believes that the program can be expanded both to operate on a more regular basis, as opposed to the current twice a year option, and to increase the number of places available on the program. Necessarily, any expansion of the program is somewhat dependent on the data recommended to be collected in the epidemiological study. The committee, however, is of the opinion that the program should be expanded in terms of the number of places available on it and in terms of the number of time it is offered each year.

Recommendation 8

3.44 The committee recommends:

That the COPE Program be expanded:
(*a*) to increase the number of places available on the program; and
(*b*) to run on a regular basis.

3.45 In concert with this expansion of the COPE program information concerning the nature and availability of the program should be disseminated as widely as possible both in the general community and within the broader health community.

Recommendation 9

3.46 The committee recommends:

That information concerning the COPE Program be disseminated widely both in the general community and within the broader health community.

3.47 In terms of prudent fiscal accountability and the efficient delivery of program services, it is the committee's opinion that there should a regular program evaluation of the COPE Program.

Recommendation 10

3.48 The committee recommends:

That the COPE program be evaluated on a regular basis.

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4. LIST OF RECOMMENDATIONS

Recommendation 1 *(Paragraph 3.8)*

That a comprehensive epidemiological study on benzodiazepine usage, including prescribing and dispensing practices, in the ACT be commissioned by the ACT Department of Health.

Recommendation 2 *(Paragraph 3.9)*

That the ACT Department of Health maintain quarterly statistics on –
(*a*) all prescriptions written and dispensed for benzodiazepines; and
(*b*) the Defined Daily Dose per 1000 of the population per day.

Recommendation 3 *(Paragraph 3.10)*

That the ACT Department of Health establish, implement and maintain a management plan for dealing with benzodiazepine dependence.

Recommendation *(paragraph 3.12)*

That the Woden Valley Hospital and Calvary Hospital conduct a survey of their benzodiazepine prescription protocols to assess the impact of: –
(*a*) hospital administered benzodiazepines on the acquisition of either physiological dependence or the Benzodiazepine Dependence Syndrome; and
(*b*) hospital based educational programs on the prescription and use of benzodiazepines.

Recommendation 5 *(Paragraph 3.33)*

That the ACT Branch of the Australian Medical Association, the ACT Sub–Branch of the Pharmaceutical Society of Australia, the ACT Nurses Registration Board and the Department of Health consider conducting a coordinated and continuing education campaign for benzodiazepine prescribers and dispensers highlighting the benzodiazepine treatment gender bias with the specific aim of:

(*a*) assessing the extent of that gender bias as indicated by the numbers of women treated with benzodiazepines;
(*b*) strongly suggesting alternative treatment strategies for women;
(*c*) pointing out the specific side effects for women, including those that can occur during pregnancy and lactation; and
(*d*) emphasising the need for, and the right of, female patients to be advised of these gender related side effects.

Recommendation 6 *(Paragraph 3.40)*

That the Department of Health investigate the establishment of an independent and separate Benzodiazepine Referral Centre.

Recommendation 7 *(paragraph 3.42)*

That those non government agencies, funded through the Alcohol and Drugs Service Grants Program, which offer clients a variety of treatment levels for problems associated with the use of, and dependence on, benzodiazepines continue to be funded.

Recommendation 8 *(Paragraph 3.44)*

That the COPE Program be expanded:
(*a*) to increase the number of places available on the program; and
(*b*) to run on a regular basis.

Recommendation 9 *(Paragraph 3.46)*

That information concerning the COPE Program be disseminated widely both in the general community and within the broader health community.

Recommendation 10 *(Paragraph 3.48)*

That the COPE program be evaluated on a regular basis.

– ❦ –

APPENDIX A

SUBMISSIONS ADVERTISEMENT

AUSTRALIAN CAPITAL TERRITORY

(COAT OF ARMS)

LEGISLATIVE ASSEMBLY

SELECT COMMITTEE ON DRUGS

The Select Committee on Drugs is holding inquiries into the ACT Methadone Program, into problems associated with the use of tranquillisers/benzodiazepines and into problems associated with alcohol and youth. The Committee is interested to hear from people and organisations who have views on:

Methadone and –

- the efficacy of the current Methadone Program;
- alternative Methadone dispensing methods;
- client/service relationships within the Methadone Program.

Tranquillisers/benzodiazepines and –

- the use of tranquillisers/benzodiazepines;
- dependency and other side effects of tranquillisers/benzodiazepines;
- alternative health strategies.

Alcohol and Youth and –

- underage drinking;
- binge drinking;
- social and health effects of alcohol on young people;
- alternative social strategies.

Submissions should be received by 5 June 1992.

Submissions and inquiries should be directed to:

The Secretary
Select Committee on Drugs
ACT Legislative Assembly
GPO Box 1020
CANBERRA ACT 2601

Telephone: (06) 205 0129

APPENDIX B

SUBMISSIONS

No.	*Date Rec'd*	*Person/Organisation*	*Ackn date*
1.	29. 5 92	Dr M Tedeschi	2. 6. 92
2.	9. 6. 92	Anonymous	N/A
3.	10. 6. 92	Dept of Education & Training	10. 6. 92
4.	11. 6. 92	NODSSA Inc	11. 6. 92
5.	11. 6. 92	ADD Inc	11. 6. 92
6.	11. 6. 92	ACTIV League	12. 6. 92
7.	12. 6. 92	ACT Youth Affairs Network	12. 6. 92
8.	16. 6. 92	Mr A Stankevicius	17. 6. 92
9.	22. 6. 92	A–G's Department	23. 6. 92
10.	26. 6. 92	Chief Minister's Department	29. 6. 92
11.	30. 6. 92	ACT Branch, AMA *	30. 6. 92
12.	7. 7. 92	ACT Division, AHA	15. 7. 92
13.	4. 8. 92	Department of Health *	4. 8. 92
14.	28. 8. 92	ACT Sub Bch Pharmaceutical Soc of Aust and the ACT Bch Pharmacy Guild of Aust	31. 8. 92

* Submissions which also referred to benzodiazepines

APPENDIX C

WITNESSES

Australian Medical Association – ACT Branch

Dr Robert John Allen – President

Dr Keith Powell – Member

Department of Health

Ms Gillian Mary Biscoe – Chief Executive Officer

Dr Andrew Thomas Butlin – Director, Alcohol and Drug Service

Pharmaceutical Society of Australia – ACT Sub Branch and Pharmacy Guild of Australia ACT Branch

Mr Bill Arnold – Vice–President, ACT Branch, Pharmacy Guild of Australia

Mr Peter John Holder – Chairman, ACT Sub Branch, Pharmaceutical Society of Australia

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