

Clinical governance in action

The benzodiazepine problem in primary care: the seriousness and solutions

Perminderjit Singh Dhahan BMedSc (Hons)
Medical Student

Romaana Mir
Medical Student

University of Birmingham Medical School, Birmingham, UK

ABSTRACT

Objective To audit the practice of benzodiazepine prescribing in Primary Care, and to provide implementable solutions to this problem.

Method Two primary care practices within the South Birmingham Primary Care Trust with a combined load of approximately 32 000 patients were recruited. Those receiving benzodiazepine prescription were identified and data was analysed. Ethical approval was sought in advance from The Student Project Sub-Committee of the South Birmingham Research Ethics Committee.

Results Patients on benzodiazepines were identified (241), with 58 selected for the study. Prevalence of benzodiazepine prescription was 0.75%. Females predominated with 60.3%, compared to 39.7% males. Mean age 64.34 years (STD 18.9).

Reasons for prescription: depression (31%), insomnia (29.6%) and anxiety (17.2%). Time on benzodiazepine ranged from 3 to 380 months. 8.6% were informed on non-pharmacological therapies prior to treatment initiation. 36.2% were informed of risks of dependence, with an additional 36.2% advised to reduce their dose of benzodiazepines on review, which occurred three monthly in 82.8% of patients. **Conclusion** Care of patients receiving benzodiazepines falls short of ideal practice, as reflected in the results of this audit. We recommend further education of healthcare professionals to identify and eradicate this problem.

Keywords: audit, benzodiazepine, primary care, solutions, undergraduate

Introduction

Mental illness is an important health problem, affecting one in six adults of working age.¹ Patients who suffer with anxiety, depression and insomnia will be looked after by their general practitioner (GP) in the primary care setting.

Benzodiazepines are part of the spectrum of drug treatment prescribed to these patients, and the 2001 Mental Health National Service Framework requires all health authorities to review and monitor prescribing as part of the clinical audit programme.¹

The current Mental Health National Service Framework guidelines state that benzodiazepine medication should be used for no more than two to four weeks.¹

Benzodiazepines have been in clinical use since the 1960s as an alternative to barbiturate treatment for

anxiety, insomnia and depression.² At the time they were considered less addictive, more effective and to have a safer overdose profile, and were soon being used for treatment of a range of conditions, with uses ranging from an anxiolytic to the treatment of clinical depression.¹ Concerns surrounding benzodiazepine prescribing and withdrawal became apparent with prescription of benzodiazepines reaching a peak in the 1970s. Since then, there has been a decrease in prescribing in many developed countries.³ From 1979 to 1985, prescribing of benzodiazepines in Britain has reduced by 16%.²

Benzodiazepine use can cause dependence, and long-term use can cause symptoms similar to the initial presenting complaint, i.e. depression and emotional

blunting.^{2,4,5} Serious drug side-effects include ataxia, aggression, psychotic manifestation, nervousness and irritability.⁶

The concerns surrounding benzodiazepine medication are not confined to the medical aspects; it causes considerable public health and socio-economic problems: increased risk of accidents due to sedation, increased risk of fatality of overdose when combined with ethanol, increased risk of suicide when associated with depression, and increased incidence of crime including antisocial acts.² Higher rates of benzodiazepine prescription are found in the lower social classes and in the over-65 age group, and within this group, the higher use of benzodiazepine medication is associated with an increased risk of falls resulting in fracture.⁷

Use of benzodiazepine medication should not be warranted for over four weeks, due to the serious issues of drug dependence.⁶ In Britain the prevalence of patients receiving benzodiazepine prescription for more than 12 months has been estimated at 0.5%.⁸ Of these, one-third will be dependent at six months, with some after only a few weeks.²

As Dr Coleman remarked, 'the biggest drug-addiction problem in the world doesn't involve heroin ... it doesn't even involve an illegal drug ... the problem is by a group of drugs, the benzodiazepines'.⁹

The problem of benzodiazepine prescription is clear. Benzodiazepines cause symptoms similar to the initial presenting complaint: morbidity in the elderly and problems within the community.

Audit

To evaluate the extent of the benzodiazepine problem in primary care, an audit was carried out within two practices in South Birmingham Primary Care Trust. The aims of the audit which were:

- 1 to assess the actual prevalence of benzodiazepine prescribing within the sample population

- 2 to compare benzodiazepine prescribing by age and sex
- 3 to suggest recommendations for improving benzodiazepine prescription and practice in primary care.

Results

Fifty-eight patients were identified for inclusion in the study; this small sample population illustrates the continued decline in benzodiazepine prescription.⁸

The results illustrated 0.8% prevalence of benzodiazepine use in the population; the majority of patients were female with benzodiazepines mostly being prescribed for anxiety, insomnia or depression. All patients studied had been prescribed benzodiazepines for over three months.

The ratio of females to males was 3:2. Consistently higher benzodiazepine use has been recorded in females, and this is thought to originate from females experiencing more depressive symptoms.^{10,11} Of the males, 60.9% were prescribed benzodiazepines for anxiety, insomnia or depression, whereas 74.3% of females had the same conditions. This confirms the anticipated sex difference in benzodiazepine prescribing.

Figure 1 illustrates that initial benzodiazepine prescription at young ages is more likely to occur in males. Younger patients are more likely to be prescribed benzodiazepines for conditions other than insomnia and depression, which is supported by the raw data collected.

The study sample contained three male patients with schizophrenia, two of whom were aged under 65 years. Schizophrenia presents at a young age, and this may partly explain the peak in male benzodiazepine prescription.¹² Another male in the younger age group suffered with obsessive compulsive disorder, and again this contributes to the peak in the younger age group.

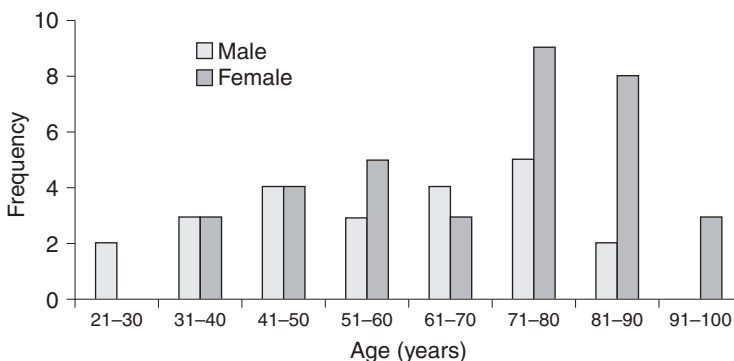


Figure 1 Age and benzodiazepine medication in males and females

No evidence could be found for the sex differences seen in the study sample.

As stated, there are two peaks in female initial benzodiazepine prescription. The first is at ages 41–50 years; the authors propose this peak is due menopausal treatment. Benzodiazepines were prescribed extensively to treat menopausal symptoms and this may have formed a cohort of females who currently receive long-term benzodiazepine medication.¹³

The second peak for females is at 71–80 years, attributed to the increase in depression in this age group.¹⁴

It is recognised that there is an ageing population of benzodiazepine users; these patients should be encouraged to reduce their use.¹⁵ Figure 1 illustrates that the peak incidence of benzodiazepine use is at the higher age groups as compared to younger patients. It is also seen in Figure 2 that there is a significant positive correlation between the age of a patient and the length of time that patient has been on benzodiazepines.

Results also revealed that none of the study population had been taking benzodiazepines for less than four weeks. Although there were no new patients prescribed benzodiazepines at the time of data collection, it was shown that 89.7% of the patients were identified as very long-term users, with nine of the study sample taking benzodiazepines for over 10 years. Most of these patients were diagnosed with insomnia, with the majority being female. One would have expected most patients prescribed benzodiazepines for over 10 years to be on them for reasons other than insomnia and depression, for example epilepsy, but it was found that only one of the patients prescribed for over 10 years suffered from this condition.

Seven of the nine patients were over the age of 65, and in this age group benzodiazepine use is strongly associated with an increased risk of falls, and consequently high morbidity and mortality.¹⁴

The use of benzodiazepines for over four weeks is futile at reducing symptoms, and some patients respond by increasing doses consumed, leading to dependence, which begs the question ‘why are these patients still taking them?’^{2,16}

It is still feasible and advisable to withdraw benzodiazepines no matter what age the patient is or what length of time they have been on the drug. It has been shown that older people do just as well, if not better, than younger people at reducing benzodiazepine intake.¹⁷ Withdrawal is undertaken by prescribing equivalent doses of diazepam, according to the dose of the initial benzodiazepine, taken at night. This dose is then reduced every fortnight, and counselling and beta-blockers can be used to aid the withdrawal process.⁶

Solutions

The analysis of the measured data with the initial criteria and standards has produced the following recommendations to be implemented in primary care.

- 1 A holistic approach to benzodiazepine reduction involving all members of the primary care team, e.g. doctors, nurses, administrative staff.
- 2 Prescription of non-pharmacological therapies for anxiety, insomnia and depression prior to benzodiazepine prescription.
- 3 Doctors should ensure concise notes are written in patient medical records regarding all aspects of the consultation.
- 4 Letters should be sent to all patients currently prescribed benzodiazepines to advise reduction and withdrawal, including information on the risks of dependence. Patients should also be advised to make an appointment with their GP.

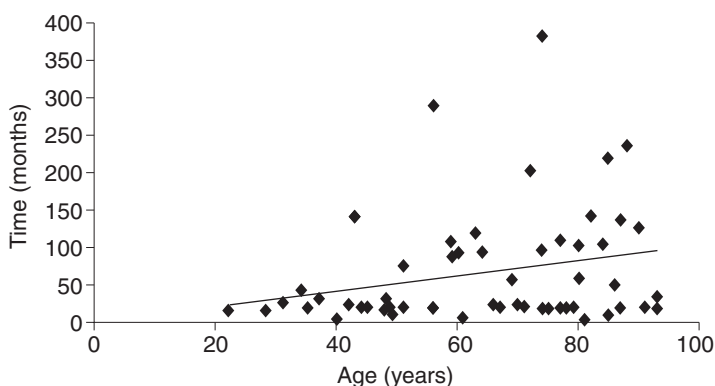


Figure 2 Age and time taking benzodiazepine. The regression equation for the points is $y = 10051x - 2.4514$; $R^2 = 0.0635$

- 5 Patients should be contacted directly within one month, should they not reply to any letter sent.
- 6 Patients currently receiving benzodiazepines should be flagged on the computerised medical records, enabling easy identification within the consultation setting, and opportunistic benzodiazepine reduction advice.

Conclusion

Mental illness is a major problem affecting one in six of working age, and the failure to treat depression effectively contributes to relapse and the development of recurrent and chronic depression.¹

In this clinical audit we have highlighted the difficulties surrounding benzodiazepine prescription, not only for the primary care team but also for the patients. This is illustrated in the large proportion of patients prescribed long-term benzodiazepines for conditions that can be treated non-pharmacologically. The authors feel the future of treatment for mental illness depends on improved education of health professionals, but at present the reduction of drugs is not taught effectively.

ACKNOWLEDGEMENTS

Our warmest thanks to Dr A Jaron and Dr P Adab for providing priceless, endless guidance.

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CONFLICTS OF INTEREST

None.

ADDRESS FOR CORRESPONDENCE

Romaana Mir, 2 Beechwood Avenue, Plymouth, Devon PL4 6PW, UK. Tel: +44 (0)7929 226491; email: Romaana@doctors.org.uk

Received 29 August 2005

Accepted 15 October 2005