Long-term benzodiazepine and Z-drugs use in the UK: a survey of general practice

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Abstract

Background: Current NICE guidelines state that Benzodiazepines and Z-drugs (BZD) be prescribed for no more than four weeks, although anecdotal data suggest that many patients are prescribed BZDs for much longer. As there are no recent, evidence-based estimates of long-term (>12 mo.) BZD use in the United Kingdom, the scale of this potential problem is unknown.

Aim: To produce the first reliable, evidence-based estimate of long-term BZD use in the UK.

Design and Setting: Estimates of UK long-term BZD use are projected from data obtained from a survey conducted by the Bridge Project, a prescribed drug withdrawal support charity in the North of England (Bradford District).

Method: Percentages of long-term BZD users derived from the survey, sampling primary care GP surgeries with ~100k registered patients, are applied to UK-wide NHS patient numbers. The data are filtered to exclude the very young/old and those with other health issues.

Results: The mean percentage (+ confidence interval) of registered patients prescribed BZDs for more than a year in the survey sample is 0.69% ± 0.15%. This yields a mean projection of 296,929 ± 64,376 long-term BZD users in the UK. The data also suggest that as many as 119,165 of these patients may be willing to accept prescribed drug dependency withdrawal services.

Conclusion: Over a quarter of a million people in the UK are likely to be taking highly dependency-forming hypnotic medication far beyond the recommended time scales. As there is evidence that long-term use of BZDs causes adverse physiological and neurological effects, and protracted withdrawal (with associated complications), this represents a serious public health problem.

How this fits in:

While it is acknowledged that many people in the UK are taking benzodiazepines and Z-drugs long-term, there is no up-to-date, evidence-based estimate of the number of long-term UK users. The research reported here fills this data gap and offers recommendations on how the problems associated with BZD dependence and withdrawal can be best addressed at both clinical and policy levels.

INTRODUCTION

Benzodiazepines are hypnotic drugs that enhance the activity of gamma-aminobutyric acid (GABA) at the GABAA receptor. Zolpidem, zopiclone and zaleplon, commonly known as Z-drugs, are non-benzodiazepine hypnotics that share a similar mode of action but are chemically distinct.[1] Both benzodiazepines and Z-drugs (BZDs) are indicated for the short-term relief of severe or disabling anxiety, whether this occurs alone or in association with insomnia or short-term psychosomatic, organic, or psychotic illness.[2] Approximately 16 million prescriptions for BZDs were issued in England during 2015 – a figure that has broadly remained steady since 2011.[3] Concerns regarding the addictive potential of these drugs have been highlighted for many years,[4 5] leading the BNF to recommend that uninterrupted usage not exceed four weeks,[6] as long-term use can cause adverse neurological, cognitive and physical effects, but also high degrees of physical and psychological dependency.[7 8 9]

It is now recognised that withdrawal from benzodiazepines and Z-drugs can be protracted, generally lasting between 6 to 18 months after the last dose, and sometimes even longer.[10 11] Withdrawal charities report numerous cases of patients taking at least three or four years to recover, with some being left with residual symptoms, such as tinnitus, for years beyond this timeframe.[12] In all, long-term BZD use (and withdrawal from it) can generate a range of long-term disabling effects, which can impact negatively on many aspects of a person's life, threatening relationships, careers and financial stability.[13]

Currently in the UK there are no dedicated NHS services available to support these long-term BZD users during withdrawal, and instead patients have to rely on a small number of inadequately resourced specialist support charities, whose provision extends to only a handful of local regions, covering less than 5% of the population. Consequently, in recent years a nationwide patient movement has materialised, alongside two separate All-Party Parliamentary Groups, which together have requested the Department of Health and Public Health England to fund specialist withdrawal services for those affected by prescribed drug dependence. A general response by each Department has focused on a lack of authoritative data on the number of long-term users in the UK, and accordingly, on the number of those affected by dependence and withdrawal. In the absence of a robust indication of need, therefore, both departments have argued it is difficult to establish a clear basis for the provision of prescribed drug withdrawal services.

Today, an up-to-date, evidence-based estimate of the number of long-term BZD users is therefore required to inform policy decision-making regarding the allocation of withdrawal resources. The best existing estimate, extrapolated from a small survey by the BBC *Panorama* television programme in 2001,[14] is now 15 years out of date and therefore immaterial to current policy decision-making. Nonetheless, the continued existence of a large online community of prescribed drug dependents[15] suggests that the numbers today may be substantial. If policy decision-making is to be usefully informed, it is important to determine current levels of long-term BZD users in the general population. New data on the percentage of prescribed drug dependents from a sample of general practice surgeries allow such estimates to be calculated.

METHOD

The data are derived from a recent survey of GP surgeries in Bradford, UK, conducted by The Bridge Project. The information was accessed by submitting a request to each practice. The data include the number of registered patients at each surgery, the number of patients using BZDs, the number of patients whose use can be considered 'long-term' (defined as persons taking these medications for at least 12 months, which is significantly beyond the 2-4 weeks recommended by the BNF) and the number of long-term BZD users who agreed to accept help in ending their pharmacological dependency.

The data themselves are subject to several caveats, in terms of representativeness; in particular, they are taken only from a single geographical area, although spanning both urban and semi-rural areas. They have, however, been subject to a selection process, as the figures reported here exclude those under the age of 16 and over 80, those in receipt of palliative care, those suffering illness at the time of the survey, those with a diagnosis of epilepsy, and those with severe and enduring mental health issues. Given these exclusion criteria, and the fact that the Bridge Project has encountered surgeries that appear to have underreported the number of BZD users, the projections reported here are necessarily conservative. Although still a relatively small sample, with all of the caveats that entails, these data represent the only reliable information available on long-term use of BZDs in the UK.

To estimate the total number of long-term BZD users in the UK, the mean percentage and standard error of long-term users across surgeries is calculated. These percentages values are converted into an estimate of national long-term BZD users through multiplying them by the number of patients aged 16-80 registered at UK GP surgeries (after applying the exclusion criteria listed above) from figures published by the Health and Social Care Information Centre (2014).[16] An alternative estimate is calculated as the percentage of such users across the entire sample multiplied by the number of registered patients. The number of patients who might be willing to accept help to end long-term use is determined by multiplying the estimated number of long-term users by the overall percentage of BZD users who have agreed to take advantage of the

charitable services offered at the surgeries sampled. All calculations are performed in MS Excel 2010.

RESULTS

After filtering, the surgeries surveyed have a total of 97,798 registered patients. The mean percentage of registered patients aged 16-80 classed as long-term (>1yr.) benzodiazepine and Z-drug users across the surgeries sampled is 0.69% ± 0.15%. This yields a mean projection of 296,929 ± 64,376 long-term users in the UK. Using the overall percentage of long-term users from all sampled surgeries (i.e., ignoring between-surgery variation) yields a very similar estimate (266,905). In either case, the values indicate a substantial problem. In addition, we estimate that 119,165 of these patients (40.13% of the mean projection of UK long-term users) are likely to be willing to accept services designed to free them from prescribed drug dependency.

DISCUSSION

Summary

The results reported above indicate that over a quarter of a million people in the UK are likely to be taking dependency-forming benzodiazepine and Z-drug medication far beyond the recommended usage of 2-4 weeks, and that, furthermore, as many as 119,165 of these patients may be willing to accept help with withdrawal. However, NHS provision for involuntary dependency services is sparse.[17] As a parliamentary survey revealed in 2012, of the 100 Primary Care Trusts that responded, 83 acknowledged that they had no services to support people with prescribed drug dependence, 11 said they had partial services, while only 6 confirmed that they had services - [18] a situation exacerbated by the increased delegation of funding to local authorities since 2013. As there is already evidence that long-term use of BZDs causes adverse physiological and neurological affects,[19] [20] and protracted withdrawal,[21] this absence of dedicated support presents a problem, particularly at a time when efficiency restrictions in the NHS have already led to the closure of one of the few withdrawal charities.[22]

Strengths and limitations

The data presented here represent the only recent (< 15 years old), systematic survey of BZD use in the UK. The fact that the sample contains a) both urban and rural GP surgeries, encompassing b) a range of surgery sizes (i.e., numbers of patients), increases the probability that the estimates derived from the data are representative of the situation nationwide. The between-surgery variation enables the calculation of a mean estimate of the number of BZD users with a corresponding confidence interval, thus providing a more accurate projection than a single value.

The data, however, are recorded from only one region, which may limit their applicability to other areas of the UK, as demographic profiles present elsewhere will differ to some extent. The data are also self-reported, which may make them less reliable than those gathered by other means; although the degree to which this may have affected the results is not possible to estimate from the data themselves, previous work suggests that BZD use may be underreported, which would make the estimates reported here conservative.

Comparison with existing literature

The existence of long-term users of BZDs has been reported by others. [23] [24] [25] The research presented here is the first report that uses primary care data to estimate the number of long-term users in the UK. Additionally, the authors are able to estimate the number of patients identified as willing to accept withdrawal support for prescribed drug dependency.

Implications for research and practice

Assuming there is growing political will to tackle poor provision, we will conclude by making four recommendations with respect to how the harms associated with long-term BZD use could be satisfactorily addressed in the future.

1. Reduce prescribing levels by ensuring adherence to existing guidelines for prescribing and withdrawal, and develop new guidelines where needed.

Many of the patients experiencing problems with prescribed medicines may have avoided the associated harms if existing prescribing guidelines had been followed. As this study reveals, while BZDs are indicated for short-term use only in the BNF, a large cohort continue to take these drugs long-term, and withdrawal charities report many cases of new long-term prescriptions. Additionally, in the experience of the withdrawal charities, there appears to be a correlation between the severity of symptoms and the speed of withdrawal. The harm sometimes caused by steep withdrawal or a rapid taper is well documented: for many users this can lead to years of debilitating withdrawal reactions.[26] Adherence to tapering guidelines in the BNF for BZDs must be assured.

2. More research is required into the harms associated with long-term benzodiazepine and Z-drugs use, as well as the demographics and geography of long-term users.

While there is extensive testimony from individuals who have been harmed by these medications, there has been very little systematic research in key areas. We need to determine what percentage of long-term BZD users is affected by withdrawal, and how different species of withdrawal correlate with dosage, length of use and withdrawal method. Furthermore, while this current study provides the first estimate for the number of long-term BZD users in the UK, there are no data showing more detailed demographic and geographic usage

trends. Such data will be crucial in guiding withdrawal outreach programmes, should current provision be up-scaled. With reports of symptoms such as tinnitus and nerve pain lasting many years, more research is also needed into the physiological and neurological harms associated with long-term use.

3. Mandatory national provision of prescribed drug withdrawal services

Most patients are unaware of the risks of dependence and long-term effects, and therefore do not seek out services to help with withdrawal. GP practices must position to actively identify and contact long-term users. In Oldham, Bradford and Liverpool, withdrawal charities have had considerable success working with GP practices to identify, communicate with and ultimately help patients safely withdraw from their medications, and this model of provision should be extended across the country. As we have stated earlier, the provision of these services should be made mandatory to ensure that all patients across the UK are at the very least offered the support they need if they elect to withdraw.

4. Establishment of a national helpline

A national helpline and accompanying website for prescribed drug dependence, would provide an essential resource for patients, carers, families and doctors, delivering a low cost, yet effective national response to a recognised public health issue. A national helpline would also be the first step towards the provision of local specialist support services, as it would also enable the NHS to gather further data on the scale and nature of the problem and highlight gaps in current local service provision.

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