

Does improvement in the benzodiazepine prescribing indicator reflect more appropriate prescribing of hypnotics?

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Introduction For the past five years health authorities (HAs) have received a prescribing indicator report from the Prescription Pricing Authority as part of the prescribing toolkit. The benzodiazepine prescribing indicator, DDD/STAR-PU (defined daily doses/specific therapeutic group age-sex related prescribing unit), was one of the first to be included in the NHS performance indicator set for HAs.

These indicators aim to draw attention to issues that may need investigation or action. They therefore place pressure on HAs to show improvement over time. During the past five years benzodiazepine prescribing has decreased in all HAs.

However, national data show no overall decrease in prescribing of anxiolytics and hypnotics because prescribing of newer drugs such as zopiclone has increased. These newer hypnotics are only licensed for short-term use and there have been case reports of dependence with long-term use.¹

Routine prescribing of any hypnotic is undesirable. This study aimed to identify factors to take into consideration when comparing HAs on the benzodiazepine prescribing indicator.

Method Average daily quantities (ADQ) were calculated for the 95 HAs for temazepam, nitrazepam, zopiclone, zolpidem and zaleplon for October to December, 1999 and 2001. These five drugs accounted for 93 per cent of all hypnotic prescriptions in October to December 2001 in England. ADQs are an alternative to defined daily doses for calculating drug-volume usage where the ADQ value for each drug is based on doses prescribed in the UK.²

To compare HAs, ADQs were adjusted for age and sex for the population in which hypnotics were most likely to have been used (STAR-PU). Linear regression was used to examine the relationship between prescribing of older and newer hypnotics.

Regression analysis of the ADQ/STAR-PU of the five hypnotics for October to December 2001 with the IMD 2000 health deprivation and disability index³ was also performed. This index identifies people whose quality of

FOCAL POINTS

- * The benzodiazepine prescribing indicator included in the NHS performance indicator set for health authorities (HAs) has shown decreased prescribing of benzodiazepines, ie, improved performance
- * National data show that use of hypnotics has not decreased due to increased prescribing of newer non-benzodiazepine hypnotics
- * Analysis of change in prescribing across HAs for October to December 1999 and 2001 shows that use of temazepam and nitrazepam has decreased in each HA but only one HA has shown a decrease in prescribing of zopiclone, zolpidem and zaleplon
- * In 10 HAs overall prescribing of these 5 hypnotics has increased suggesting that prescribing of these drugs is not well managed in these HAs
- * A high score on the health deprivation and disability index is associated with a higher prescribing rate for hypnotics therefore tackling the root causes of health inequalities may eventually lead to less demand for hypnotics

life is impaired by either poor health or disability.

Results Not surprisingly, linear regression across HAs showed a strong relationship (R^2 0.96) between ADQ/STAR-PU for temazepam and nitrazepam and the benzodiazepine indicator for October to December 2001. The relationship between ADQ/STAR-PU for zopiclone, zolpidem and zaleplon (newer hypnotics) and the benzodiazepine indicator for October to December 2001 was much weaker (R^2 0.39).

The median change was a 3.8 per cent decrease in ADQ/STAR-PU for October to December from 1999 to 2001 for the five hypnotics. However, prescribing increased in 10 HAs (largest increase 5 per cent). Prescribing of temazepam and nitrazepam fell in every HA (median decrease 16.4 per cent, range 10.0 to 27.3 per cent).

Prescribing of newer hypnotics increased in all except one HA (median 28.5 per cent) with a wide variation (4.9 per cent decrease to 84.2 per cent increase). No relationship was seen between prescribing of newer hypnotics and prescribing of temazepam and nitrazepam.

In the 47 HAs where the percentage increase in newer hypnotics was greater than the median, 24 had a smaller decrease in prescribing of

temazepam and nitrazepam than the median. Regression analysis of the ADQ/STAR-PU of the five hypnotics with the IMD 2000 health deprivation and disability index³ showed a weak linear relationship (R^2 0.47).

Discussion Lower prescribing of temazepam and nitrazepam is a major factor in the improvement in the benzodiazepine prescribing indicator. Increased prescribing of newer hypnotics has, however, replaced some of the use of these drugs in all HAs except one. Total hypnotic prescribing has increased in 10 HAs, indicating inappropriate prescribing is occurring.

To determine whether an HA has achieved a true improvement in hypnotic usage, prescribing of both benzodiazepines and newer drugs should be reviewed. Prescribers may feel some patients expect drug treatment for insomnia and therefore find it difficult to refuse to prescribe. A high score on the health deprivation and disability index is associated with a higher prescribing rate for hypnotics. The NHS plan aims to tackle factors leading to health inequalities, which in the long term may reduce the need for hypnotics.

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