Major study reveals safest way to take Valium and Ativan

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Type of work: peer reviewed/ observational study/ people

More than 60 years after being introduced, doctors have uncovered the first reliable evidence to confirm the belief that taking benzodiazepines such as Valium and Ativan intermittently rather than continuously is associated with fewer side effects and reduced falls, hospitalisations and deaths

Benzodiazepines such as Ativan, Librium and Valium were first used to treat anxiety and insomnia in the early 1960's. By 1977, these were the most prescribed medicines globally; they are still regarded as reasonably safe and effective (although some patients developed tolerance, and became dependent on the drugs, while the risk of falls and fractures remains a concern in older people). They are still very widely used, but modern antidepressants (such as SSRIs) are more commonly prescribed.

Most studies on benzodiazepines ("benzos") only followed health outcomes for up to 6 to 8 weeks, meaning that there has been little information on the results of long-term use over months and years. This has led to conflicting views amongst doctors with some clinicians saying that benzo use should be limited to a few weeks to avoid the risks of tolerance and dependence, or even that they should not be given to people over 65 at all, whereas other doctors advocate long-term use as being acceptable.

The work is presented at the ECNP Congress in Barcelona, after recent peer-reviewed publication¹. Lead researcher Dr Simon Davies (of the Centre for Addiction and Mental Health, Toronto, ON, Canada) said:

"Using a large, dataset from Ontario, Canada, we were able to examine how people over the age of 65 with anxiety or insomnia actually took benzodiazepines after starting them. We were also able to link this with other health outcomes. So this meant considering 57,000 people who took benzos regularly on most days over a period of six months (chronic users) and 113,000 matched people who took the medicines over a similar period, but with breaks where they didn't take benzodiazepines (intermittent users). We then followed both groups for a further year. The results were striking.

Our results show that changing the way people take benzos from chronic to intermittent could lead, over one year, to 20% fewer hip fractures 33% fewer in men), 7.5% fewer falls requiring hospitalization or emergency visits and a 24% fall in the chance of needing to go into long term care". (See note below for actual numbers)

These are not just short-term consequences. Falls are the leading cause of death for people over 65 in the US² and Canada. More than one elderly person in 5 who sustains a hip fracture dies within a year³.

Dr Davies continued "This work shows that where possible, patients over the age of 65 with anxiety or insomnia who are taking Ativan, Valium or another benzo long-term

would better not to stay on the drugs continuously. In practical terms there will be some who can't change or do not want to change. These results allow you to understand the excess risks of falls, fractures, emergency visits, long term care home admission and death that you are accepting using benzodiazepines chronically rather than intermittently.

Of course, these are still prescription drugs, so they need to be taken under the quidance of your clinician".



Illustration: Valium/diazepam in an Italian pharmacy (credit, Tom Parkhill)

Commenting, Professor Christian Vinkers (of Amsterdam University Medical Centres) said:

"This is a very important study, confirming once again the long-term benzodiazepine use should not be encouraged. The risk of falls, as well as cognitive side effects and impaired driving skills - with the risk of road accidents - make chronic overuse of benzodiazepines a public health issue. Of course, there is a small group of patients who should have access to long-term use, but it is reasonable to assume that this group is currently too large."

This is an independent comment, Professor Vinkers was not involved in this work.

NOTE: It is important to consider the real numbers as well as the percentages. There were twice as many intermittent benzo users as matched chronic benzo users, so the real numbers need to be adjusted accordingly. There were **3592 hospitalisations or emergency department visits following falls, in the intermittent group**, and 2906 in the chronic group. If the chronic group had the same number of

participants as the intermittent group, we would expect 5200 hospitalisations/emergency dept. visits. Similar calculations are available for hip fractures and other long-term outcomes.

Notes (to be finished)

- Comparative safety of chronic vs intermittent benzodiazepine prescribing in older adults: a population-based cohort study. SJC Davies, D Rudoler, C de Oliveira, A Huang, P Kurdyak, A Iaboni. Journal of Psychopharmacology 2022 36 (4), 460-469. https://journals.sagepub.com/doi/pdf/10.1177/02698811211069096
- 2. Deaths from Falls Among Persons Aged ≥65 Years United States, 2007–2016 https://www.cdc.gov/mmwr/volumes/67/wr/mm6718a1.htm?s_cid=mm6718a1_w
- 3. Changing trends in the mortality rate at 1-year post hip fracture a systematic review https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6428998/