# PERSPECTIVE ARTICLE

### LONG-TERM USE OF BENZODIAZEPINES, STIMULANTS AND LITHIUM IS NOT EVIDENCE-BASED

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# Abstract

*Objective*: To study whether three widely differing drug classes, benzodiazepines and similar agents, stimulants and lithium, showed similar patterns of long-term usage.

*Method*: I constructed usage curves over a ten-year period, from 2007 to 2017, based on data from Statistics Denmark.

*Results*: In 2007, a total of 478,097 patients deemed a prescription for a benzodiazepine or similar agent, 13,225 for lithium and 8,800 for a stimulant, corresponding to 8.8%, 0.24% and 0.16%, respectively, of the Danish population of 5,427,459 people. Only 6,2102, 5,339 and 983 of these were first-time users (13.0%, 40.4% and 11.2%, respectively). The percentage of current users who redeemed a prescription for the same or a similar drug in each of the following years fell most quickly for benzodiazepines and similar agents and most slowly for lithium, and after ten years, it was 18%, 40% and 29%, respectively.

For first-time users, the drop in usage was much quicker. The percentage of first-time users who redeemed a prescription for the same or a similar drug in each of the following years fell to 12%, 59% and 49%, respectively, already after only two years.

*Conclusions*: We should focus on helping patients withdraw slowly and safely from the drugs they are on instead of telling them that they need to stay on them.

Key words: benzodiazepines, stimulants, lithium

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## Introduction

It can be questioned if long-term use of psychiatric drugs is evidence-based. If it were, one would expect usage curves following patients over time to be quite different for antipsychotics and antidepressants because the main indication for antipsychotics is schizophrenia, which has traditionally been perceived as a chronic condition, whereas the main indication for antidepressants is depression, which has been perceived as episodic.

However, the usage curves are remarkably similar (Gøtzsche, 2019). The percentage of current users in Denmark who redeemed a prescription for the same or a similar drug in each of the following ten years fell at about the same rate for the two classes of drugs, and after ten years, it was 35% vs 33% (figure 1). Most of these patients had already been treated for years before they were included in the ten-year follow-up. Many patients therefore take these drugs for many years.

This suggests that factors other than the drugs' pharmacological properties and the natural course of untreated disease are decisive for their usage.

Psychiatric drug usage is mainly driven by commercial pressures (Gøtzsche, 2015; Nielsen & Gøtzsche, 2011; Whitaker, 2015), and it continues to increase. In the UK, for example, antipsychotic prescriptions increased by 5% per year on average and antidepressants by 10% in the period 1998 to 2010



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(Ilyas & Moncrieff, 2012). This huge increase does not reflect a clinical need, and it seems to be harmful. In all countries where this relationship has been examined, the increase in drug usage has been accompanied by an increase in disability pensions because of mental disorders (Whitaker, 2015).

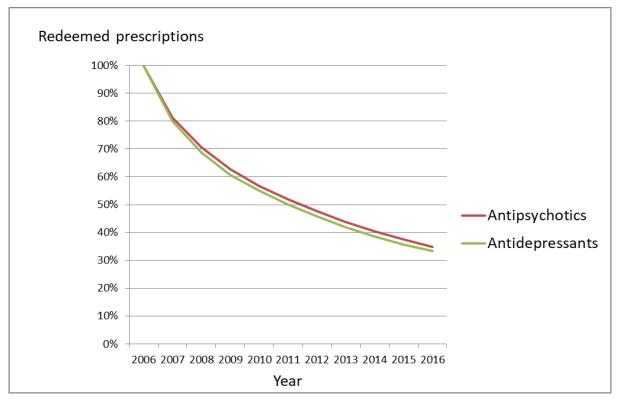
Withdrawal effects are also important causes of long-term usage. They commonly occur when patients try to stop and are often misinterpreted as disease symptoms (Gøtzsche, 2015). For some patients, pill taking and the resulting brain changes become part of their identity, making them afraid of stopping.

I studied whether three widely differing drug classes, benzodiazepines and similar agents, stimulants and lithium, showed similar patterns of long-term usage as antipsychotics and antidepressants.

## Methods

I asked Statistics Denmark to run six analyses based on the Danish Drug Register:

 The number of patients who redeemed a prescription for a benzodiazepine or similar agent (ATC codes N05BA, N05CD or N05CF) in 2007 - not necessarily for the first time - and who redeemed such a prescription during each of the following years up to 2017.



**Figure 1**. Percentage of current users in Denmark who redeemed a prescription for the same or a similar drug in each of the following years after 2006

- 2. Same as in 1 but for stimulants (N06BA) and lithium (N05AN).
- 3. Same as in 1 and 2 but only including first-time users in 2007, which means that the patients had not used such a drug between 1995 (the first year for which statistical data were available) and 2006.

I constructed usage curves over time for patients already in treatment in 2007 by subtracting first-time users and compared the results for the three drug classes.

### Results

In 2007, a total of 478,097 patients deemed a prescription for a benzodiazepine or similar agent, 13,225 for lithium and 8,800 for a stimulant, corresponding to 8.8%, 0.24% and 0.16%, respectively, of the Danish population of 5,427,459 people. Only 6,2102, 5,339 and 983 of these were first-time users (13.0%, 40.4% and 11.2%, respectively). The percentage of current users who redeemed a prescription for the same or a similar drug in each of the following years fell most quickly for benzodiazepines and similar agents and most slowly for lithium (**figure 2**), and after ten years, it was 18%, 40% and 29%, respectively.

For first-time users, the drop in usage was much quicker. The percentage of first-time users who redeemed a prescription for the same or a similar drug in each of the following years fell to 12%, 59% and 49%, respectively, already after only two years.

### Discussion

These data show that most patients already in

treatment with a benzodiazepine or similar agents, a stimulant or lithium, continue to take them for many years.

The drop in usage over time was reasonably similar for five major classes of psychiatric drugs. After ten years, the span in continued usage went from 18% for benzodiazepines or similar agents to 40% on lithium. Whereas doctors know that benzodiazepines should be avoided because they are highly addictive, many doctors deny that the patients can become dependent on the other drugs, even though withdrawal symptoms are very common and can be severe and long-lasting (Gøtzsche, 2015; Breggin, 2008; Nielsen, & Gøtzsche, 2012; Breggin, 2013; Davies & Read, 2019). If benzodiazepines and similar agents are nonetheless regarded as a special case, the similarity in usage after ten years for the other four drug classes is striking: The span only went from 29% to 40%, although the disorders being treated and the pharmacological properties of the drugs are widely different.

These findings are disturbing. No matter which psychiatric drug people take or what their problem is, roughly one-third of the patients will still be in treatment with the same drug or a similar one ten years later.

I find it likely that systematic deception is an important reason why drug usage continues for many years. The patients are being asked to endure the adverse effects and are told it may take some time before the drug effect sets in. They are not told that what they perceive as a drug effect is likely to be the spontaneous improvement that would have occurred in any case. Furthermore, at least half of the patients have been told - although there is no reliable evidence in support of this - that they have fallen ill because they suffer from a chemical imbalance that a drug will

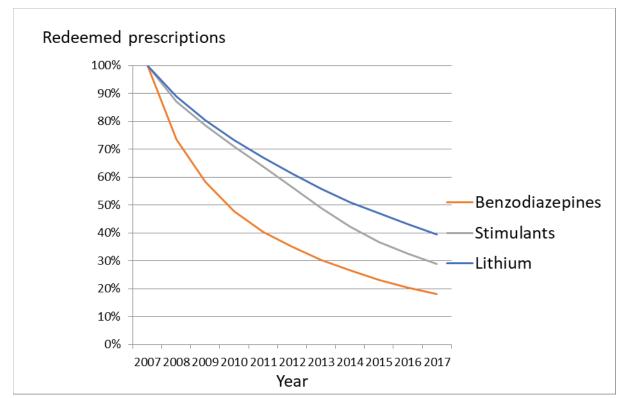


Figure 2. Percentage of current users in Denmark who redeemed a prescription for the same or a similar drug in each of the following years after 2007

fix (Gøtzsche, 2015). A study from 2019 showed that three-quarters of popular websites in 10 countries that patients are likely to consult attributed depression to a "chemical imbalance" or claimed that antidepressants could fix an imbalance (Demasi & Gøtzsche, 2019).

It is therefore not surprising that the patients often say that they are afraid of falling ill again if they stop taking their drug because they believe there is something chemically wrong with them.

## Conclusions

We should focus on helping patients withdraw slowly and safely from the drugs they are on (Gøtzsche, 2020) instead of telling them that they need to stay on them.

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